REVISION HISTORY BG3R CHASSIS

MODEL

KV-XA25P52A

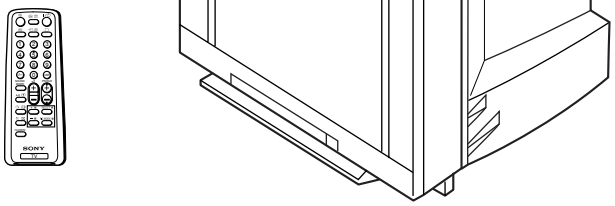
PART NO.: 9-872-324-01

NO.	SUFFIX	DATE	SUPP / CORR	DESCRIPTION
1	-01	2002/7	--	1st. Issue

Self Diagnosis
Supported model

SERVICE MANUAL BG3R CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-XA25P52A	RM-952	Thailand	SCC-U49S-A				



TRINITRON® COLOR TV

SONY®

SPECIFICATIONS

			Note
Power requirements	220-240 V AC, 50/60 Hz		
Power consumption (W)	Indicated on the rear of the TV		
Television system	B/G		
Color system	PAL, PAL 60, NTSC3.58 (AV IN), NTSC4.43		
Stereo/Bilingual System	A2 Bilingual B/G		
Channel coverage	VHF: E2 to E12 UHF: E21 to E69 CATV: S01 to S03, S1 to S41		
(Antenna)	75-ohm external terminal		
Audio output (Speaker)	5W + 5W		
Number of terminal			
Video	Input: 3* Output: 1	Phono jacks; 1 V_{P-P}, 75 ohms	*Two input lines available
Audio	Input: 3* Output: 1	Phono jacks; 500 mVrms	*Two input lines available
(Component Video)	Input: 1	Phono jacks; Y: 1 Vp-p, 75 ohms, sync negative C_B : 0.7 Vp-p, 75 ohms C_R : 0.7 Vp-p, 75 ohms Audio : 500 mVrms	
(Headphone)	Output: 1	Stereo minijack	
Picture tube	25 in.		
Tube size (cm)	64		Measured diagonally
Screen size (cm)	60		Measured diagonally
Dimension (w/h/d, mm)	696 × 513 × 499		
Mass (kg)	36		

Design and specifications are subject to change without notice.

CAUTION

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

TABLE OF CONTENTS

Section *Title* *Page*

SELF DIAGNOSTIC FUNCTION 4

1. GENERAL 7

2. DISASSEMBLY
2-1. Rear Cover Removal 20
2-2. Speaker Removal 20
2-3. Chassis Assy Removal 20
2-4. Service Position 20
2-5. Replacement of Parts 20
2-5-1. Replacement of Multi Button 20
2-5-2. Replacement of Light Guide 20
2-6. J1 Board and Terminal Bracket Removal 21
2-7. H Board Removal 21
2-8. A and B9 Boards Removal 21
2-9. Picture Tube Removal 22

3. SET-UP ADJUSTMENTS
3-1. Beam Landing 23
3-2. Convergence 24
3-3. Focus Adjustment 26
3-4. G2 (Screen) and White Balance Adjustments 26

4. CIRCUIT ADJUSTMENTS
4-1. Adjustment With Commander 27
4-2. Adjustment Method 27
4-3. Picture Quality Adjustment 32
4-4. Deflection Adjustment 32
4-5. H-Trapezoid Adjustment 33
4-6. A Board Adjustment After IC003 (Memory) Replacement 33
4-7. Picture Distortion Adjustment 34

5. DIAGRAMS
5-1. Block Diagram 35
5-2. Circuit Boards Location 37
5-3. Schematic Diagrams 38
(1) A Board Schematic Diagram 39
(2) B9 Board Schematic Diagram 43
(3) C6 Board Schematic Diagram 45
(4) H Board Schematic Diagram 47
(5) J1 Board Schematic Diagram 49
(6) VM1 Board Schematic Diagram 50
5-4. Voltage Measurements 51
5-5. Waveforms 54
5-6. Printed Wiring Boards and Parts Location 55
5-7. Semiconductors 60

6. EXPLODED VIEWS
6-1. Picture Tube 62
6-2. Chassis 64

7. ELECTRICAL PARTS LIST 65

SELF DIAGNOSTIC FUNCTION

The units in this manual contain a self-diagnostic function. If an error occurs, the STANDBY/TIMER lamp will automatically begin to flash.
The number of times the lamp flashes translates to a probable source of the problem. A definition of the STANDBY/TIMER lamp flash indicators is listed in the instruction manual for the user's knowledge and reference. If an error symptom cannot be reproduced, the remote commander can be used to review the failure occurrence data stored in memory to reveal past problems and how often these problems occur.

1. DIAGNOSTIC TEST INDICATORS

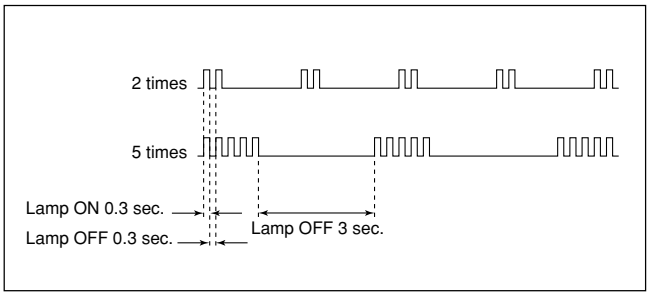
When an errors occurs, the STANDBY/TIMER lamp will flash a set number of times to indicate the possible cause of the problem. If there is more than one error, the lamp will identify the first of the problem areas.

Result for all of the following diagnostic items are displayed on screen. No error has occured if the screen displays a "0".

Diagnostic Item Description	No. of times STANDBY/TIMER lamp flashes	Self-diagnostic display/Diagnostic result	Probable Cause Location	Detected Symptoms
• Power does not turn on	Does not light	—	• Power cord is not plugged in. • Fuse is burned out F7601 (B9)	• Power does not come on. • No power is supplied to the TV. • AC power supply is faulty.
• +B overcurrent (OCP) or overvoltage (OVP) • Vertical deflection stopped • Horizontal deflection overdrive	2 times	002:000 or 002:001~255 003:001~255 004:001~255 at the same time	• H.OUT Q511 is shorted. (A board) • IC1800 is shorted. (C6 board) • -13V is not supplied. (A board) • IC 503 faulty (A board)	• Power does not come on. • Load on power line is shorted. • Has entered standby state after horizontal raster. • Vertical deflection pulse is stopped. • Power line is shorted or power supply is stopped.
• White balance failure (no PICTURE)	5 times	005:000 or 005:001~225	• G2 is improperly adjusted. (Note 2) • CRT problem. • Video OUT is faulty. (C6 board) • IC301 is faulty. (A board) • No connection A board to C6 board.	• No raster is generated. • CRT cathode current detection reference pulse output is small.
• Micro reset	—	101:00 or 101:001~225	• Discharge CRT (C6 Board) • Static discharge • External noise	• Power is shut down shortly, after this return back to normal. • Detect Micro latch up.

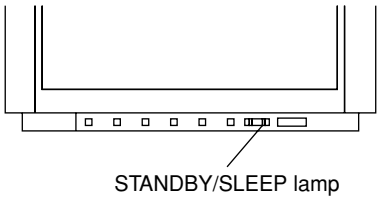
Note 1: If a + B overcurrent is detected, stoppage of the vertical deflection is detected simultaneously.
The symptom that is diagnosed first by the microcontroller is displayed on the screen.
Note 2: Refer to screen (G2) Adjustment in section 3-4 of this manual.

2. DISPLAY OF STANDBY/TIMER LIGHT FLASH COUNT



Diagnostic Item	Flash Count*
+B overcurrent/overvoltage Vertical deflection stopped	2 times
White balance failure	5 times

* One flash count is not used for self-diagnostic.



3. STOPPING THE STANDBY/TIMER FLASH

Turn off the power switch on the TV main unit or unplug the power cord from the outlet to stop the STANDBY/TIMER lamp from flashing.

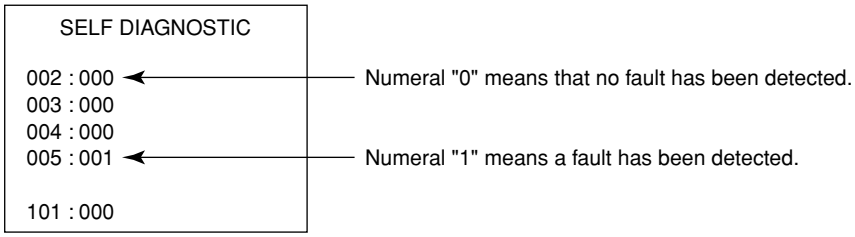
4. SELF-DIAGNOSTIC SCREEN DISPLAY

For errors with symptoms such as “power sometimes shuts off” or “screen sometimes goes out” that cannot be confirmed, it is possible to bring up past occurances of failure for confirmation on the screen:

[To Bring Up Screen Test]
In standby mode, press buttons on the remote commander sequentially in rapid succession as shown below:

Screen display ➡ channel 5 ➡ Sound volume - ➡ Power ON
⇧
Note that this differs from entering the service mode (mode volume +).

Self-Diagnosis screen display


SELF DIAGNOSTIC
002 : 000
003 : 000
004 : 000
005 : 001
101 : 000
Numeral "0" means that no fault has been detected.
Numeral "1" means a fault has been detected.

5. HANDLING OF SELF-DIAGNOSTIC SCREEN DISPLAY

Since the diagnostic results displayed on the screen are not automatically cleared, always check the self-diagnostic screen during repairs. When you have completed the repairs, clear the result display to “0”.

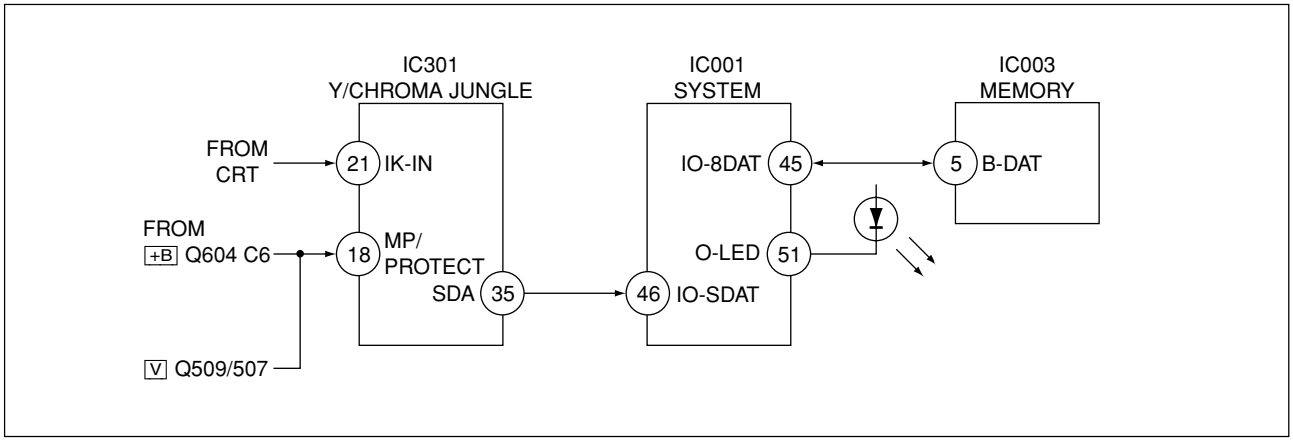
Unless the result display is cleared to “0”, the self-diagnostic function will not be able to detect subsequent faults after completion of the repairs.

[Clearing the result display]
To clear the result display to “0”, press buttons on the remote commander sequentially as shown below when the diagnostic screen is being displayed.

Channel [8] ➡ 0

[Quitting Self-diagnostic screen]
To quit the entire self-diagnostic screen, turn off the power switch on the remote commander or the main unit.

6. SELF-DIAGNOSTIC CIRCUIT

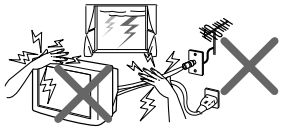


+B overcurrent (OCP)	Occurs when an overcurrent on the +B(135) line is detected by Q604. If Q604 go to ON and the voltage to pin 18 of IC301 should go down when V.SYNC is more than seven verticals in a period, the unit will automatically turn off.
Vertical deflection stopped	Occurs when an absence of the vertical deflection pulse is detected by Q509 and IC001 shut down the power supply.
Vertical deflection overcurrent	Occurs when an overcurrent on V drive line is detected by Q507. Power supply will be shut down when detect this by IC001.
White balance failure	If the RGB levels* do not balance or become low level within 5 seconds, this error will be detected by IC301. TV will stay on, but there will be no picture. * (Refers to the RGB levels of the AKB detection Ref pulse that detects IK.)

The operating instruction mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

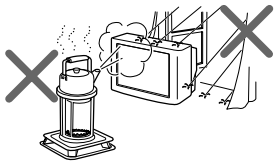
WARNING

- Dangerously high voltages are present inside the TV.
- Operate the TV only between 220 – 240 V AC.

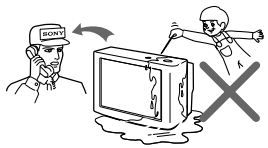


For your own safety, do not touch any part of the TV, the power cord and the antenna cable during lightning storms.

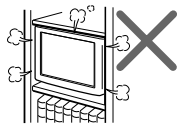
For children's safety, do not leave children alone with the TV. Do not allow children to climb onto it.



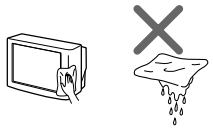
To prevent fire or shock hazard, do not expose the TV to rain or moisture.



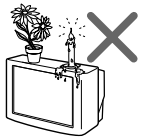
Do not operate the TV if any liquid or solid object falls into it. Have it checked immediately by qualified personnel only.



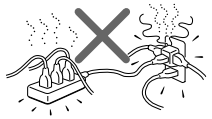
Do not block the ventilation openings of the TV. Do not install the TV in a confined space, such as a bookcase or built-in cabinet.



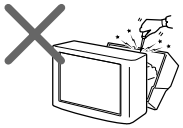
Clean the TV with a dry and soft cloth.
Do not use benzine, thinner, or any other chemicals to clean the TV. Do not scratch the picture tube.



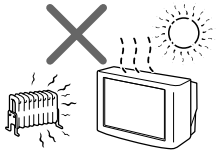
Do not place any objects on the TV.



Do not plug in too many appliances to the same power socket. Do not damage the power cord.



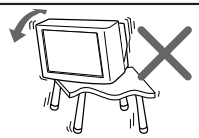
Do not open the cabinet and the rear cover of the TV as high voltages and other hazards are present inside the TV. Refer servicing and disposal of the TV to qualified personnel.



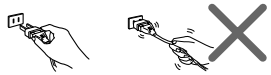
Your TV is recommended for home use only.
Do not use the TV in any vehicle or where it may be subject to excessive dust, heat, moisture or vibrations.

SECTION 1
GENERAL

WARNING (continued)



Install the TV on a stable TV stand and floor which can support the TV set weight. Ensure that the TV stand surface is flat and its area is larger than the bottom area of the TV.



Pull the power cord out by the plug. Do not pull the power cord itself. Even if your TV is turned off, it is still connected to the AC power source (mains) as long as the power cord is plugged in. Unplug the TV before moving it or if you are not going to use it for several days.

Getting Started

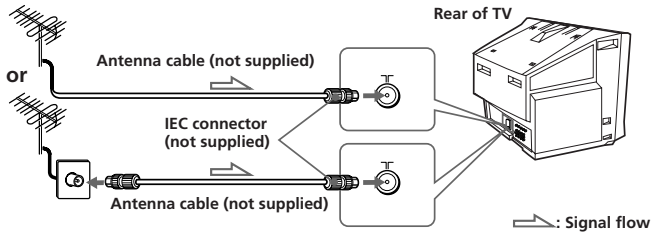
CAUTION

- Do not plug in the power cord until you have completed making all other connections; otherwise a minimum leakage current might flow through the antenna and other terminals to ground.
- To avoid battery leakage and damage to the remote, remove the batteries from the remote if you are not going to use it for several days. If any liquid that leaks from the batteries touches you, immediately wash it away with water.

Step 1

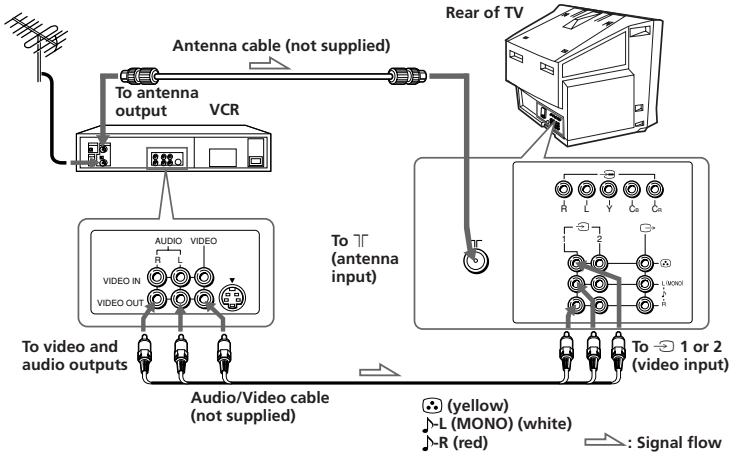
Connect the antenna

If you wish to connect a VCR, see the **Connecting a VCR** diagram below.



Connecting a VCR

To watch the video input, press ⊖ (see page 13).

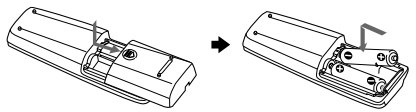


Notes

- If you connect a monaural VCR, connect the yellow plug to (the yellow jack) and the black plug to L (MONO) (the white jack).
- If you connect a VCR to the ⊤ (antenna input) terminal, preset the signal output from the VCR to the program number 0 on the TV.
- Do not connect video equipment to the ⊖ 2 (video input) jacks at the front and the rear of your TV at the same time; otherwise the picture will not be displayed properly on the screen.
- When no signal is input from the connected video equipment, the TV screen becomes blue.

Step 2

Insert the batteries into the remote

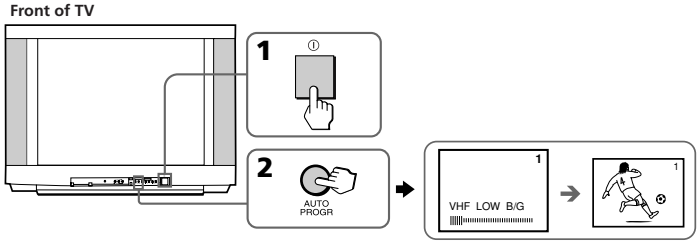


Note

- Do not use old batteries nor use different types of batteries together.

Step 3

Preset the channels automatically



Tips

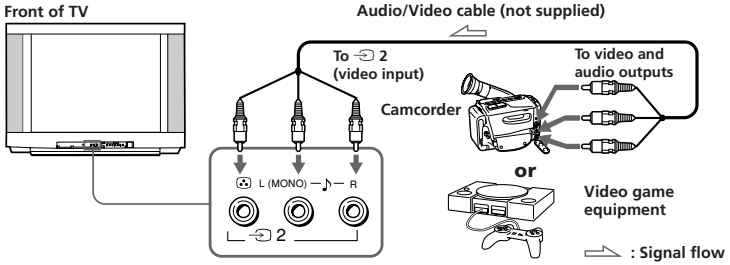
- If you want to stop automatic channel presetting, press SELECT twice.
- If your TV has preset an unwanted channel or cannot preset a particular channel, then preset your TV manually (see page 10).

Connecting optional components

You can connect optional audio/video components, such as a VCR, multi disc player, DVD, camcorder, video game or stereo system.

To watch the video input of the connected equipment, press ⊖ (see page 13).

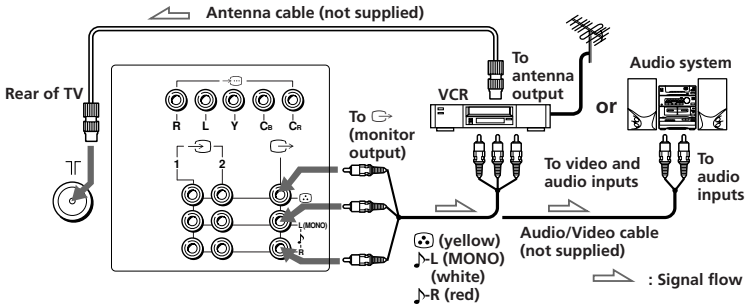
Connecting a camcorder/video game equipment using the ⊖ (video input) jacks



Notes

- You can also connect video equipment to the ⊖ 1 or 2 (video input) jacks at the rear of your TV.
- Do not connect video equipment to the ⊖ 2 (video input) jacks at the front and the rear of your TV at the same time; otherwise the picture will not be displayed properly on the screen.

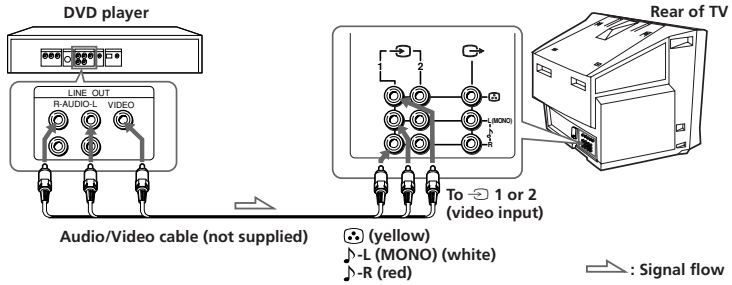
Connecting audio/video equipment using the ⊕ (monitor output) jacks



Note

- If you select "DVD" on your TV screen, the signal from the ⊕ (monitor output) jacks will not be output properly. This does not indicate a malfunction (see page 13).

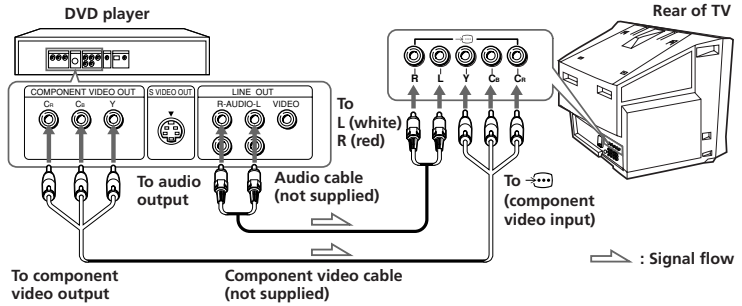
Connecting a DVD player using the ⊖ (video input) jacks



Connecting a DVD player using the ⊖ (component video input) jacks

1 Connect R and L under ⊖ (component video input) on your TV to the LINE OUT, AUDIO R and L output connectors on your DVD player.

2 Connect Y, C_B, and C_R under ⊖ (component video input) on your TV to the COMPONENT VIDEO OUT Y, C_B, and C_R output connectors on your DVD player.



Notes

- If your DVD player can output interlace and progressive mode signals, select the interlace output when connecting to ⊖ (component video input) on your TV. Your TV can receive either 525i/60Hz or 625i/50Hz interlace signals.
- Some DVD player terminals may be labeled differently:

Connect	To (on the DVD player)
Y (green)	Y
C_B (blue)	C_b, B-Y or P_B
C_R (red)	C_r, R-Y or P_R

- Since the high quality pictures on a DVD disc contain a lot of information, picture noise may appear. In this case, adjust the sharpness (see **Adjusting the picture and sound settings** on page 16).

KV-XA25P52A
RM-952

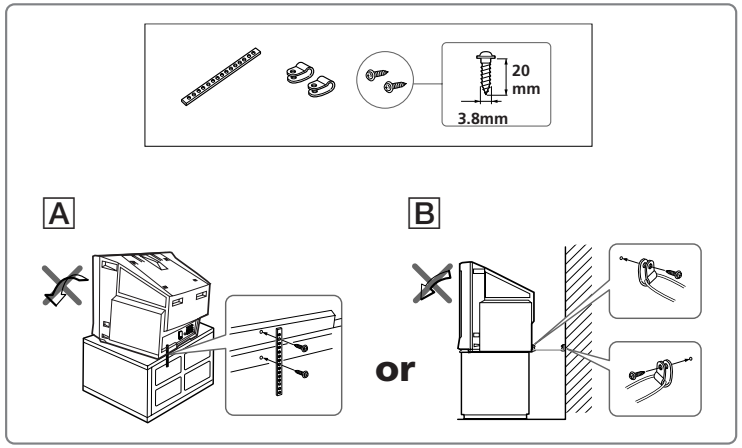
Securing the TV

To prevent the TV from falling, secure the TV using one of the following methods:

A With the supplied screws, attach the band to the TV stand and to the rear of the TV using the provided hole.

or

B Put the cord or chain through the clamps to secure the TV against a wall or pillar.

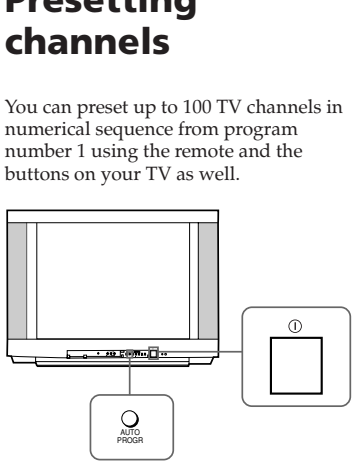


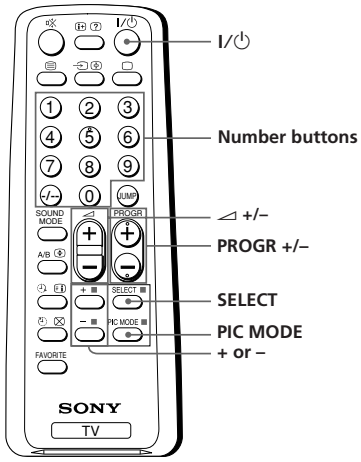
Note

- Use only the supplied screws. Use of other screws may damage the TV.

Presetting channels

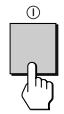
You can preset up to 100 TV channels in numerical sequence from program number 1 using the remote and the buttons on your TV as well.





Presetting channels automatically

1 Press ⏻ to turn on the TV.



2 Press AUTO PROGR.

To preset channels automatically from a specified program number

(1) Press SELECT until "AUTO PROGRAM" appears.

(2) Press + or – to enter the "AUTO PROGRAM" mode.
The on-screen display will start flashing.

(3) Press PROGR +/– or the number buttons until the desired program number appears.

(4) Press + or – to start presetting channels automatically.

continued

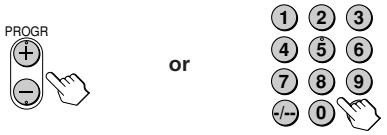
Presetting channels (continued)

Presetting channels manually

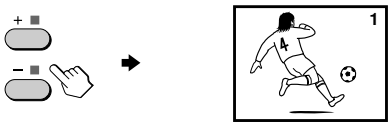
1 Press SELECT until "MANUAL PROGRAM" appears.

2 Press + or – to enter the "MANUAL PROGRAM" mode.

3 Press PROGR +/– or the number buttons until the desired program number appears.



4 Press + or – until the desired channel picture appears.

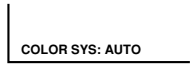


5 Press SELECT to exit the "MANUAL PROGRAM" mode.

To change the color system setting

If the color is abnormal when receiving programs through the ⊤ (antenna input) terminal or the ⊣ (video input) jack

(1) Press SELECT until "COLOR SYS" appears.



(2) Press + or – to select the appropriate color system until the color is optimal.

Tip

- Normally set "COLOR SYS" to "AUTO".

Skipping program numbers

1 Press PROGR +/– or the number buttons until the unused or unwanted program number appears.

2 Press SELECT until "MANUAL PROGRAM" appears.

3 Press + or – to enter the "MANUAL PROGRAM" mode.

4 Press PIC MODE.

5 Press SELECT to exit the "MANUAL PROGRAM" mode.

Note

- To restore the skipped program number again, preset the channel automatically or manually.

Tip

- You can also use SELECT and ◿ +/– on the TV to preset channels and skip program numbers.

To use the fine tuning (FINE) function

The fine tuning (FINE) function may help to reduce the following problems: double images and lines moving across the TV screen.

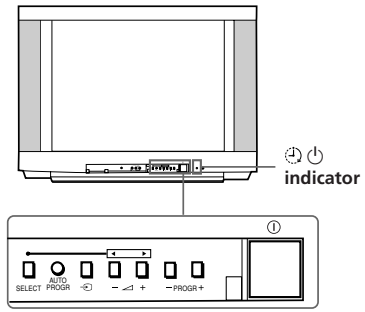
You can use the fine tuning function as below:

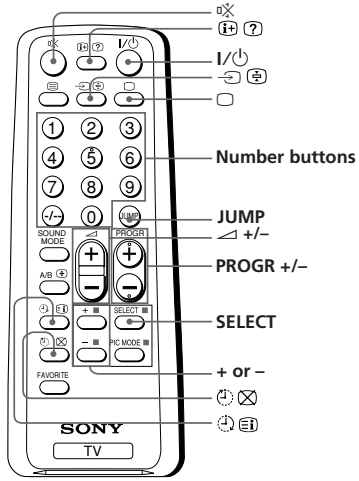
(1) Select the program number you want to adjust.
(2) Press SELECT until "MANUAL PROGRAM" appears.
(3) Press + or – to enter the "MANUAL PROGRAM" mode.
(4) Press ⊡ to display "FINE" on the screen.
(5) Press + or – continuously until the above problems are minimized. The + or – icon on the screen flashes while tuning.
(6) Press SELECT to exit the "MANUAL PROGRAM" mode.

KV-XA25P52A
RM-952

Watching the TV

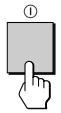
This section explains functions used while watching the TV. Most operations can be done using the remote.





1 Press ⏻ to turn on the TV.

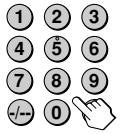
When the TV is in the standby mode (the ⏻ indicator on the TV is lit red), press **I**/⏻ on the remote or PROGR +/– on the TV.



2 Press PROGR +/– or the number buttons to select the program number.

For double digit numbers, press -/--, then the number (e.g., for 25, press -/--, then 2 and 5).

or



3 Press ◿ +/– to adjust the volume.

Additional tasks

To	Press
Turn off temporarily	**I**/⏻. The ⏻ indicator on the TV lights up red.
Turn off completely	⏻ on the TV.
Mute the sound	🔇.
Watch the video input (VCR, camcorder, etc.)	⊖ to select "VIDEO 1" or "VIDEO 2" or DVD. To return to the TV program, press ▢ or ⊖ on the TV.
Jump back to the previous program number	JUMP.
Display the on-screen information*	ⓘ+.
Adjust the volume of all program numbers automatically	SELECT repeatedly until "INTELLIGENT VOL" appears, then press + or – to select "ON". To cancel, select "OFF".
Adjust the picture position when it is not aligned to the TV screen	SELECT repeatedly until "PIC ROTATION" appears, then press + or – to adjust the alignment of the picture position. The ↴⊕ or ⊖↓ icon on the screen flashes while adjusting.

* The picture, sound, and either the program number or video input are displayed. The on-screen display for the picture and sound information disappears after about three seconds.

Changing the on-screen display language

1 Press SELECT until "LANGUAGE/ ภาษา: ENGLISH" appears on the screen.

2 Press + or – to select "ไทย".

Tip

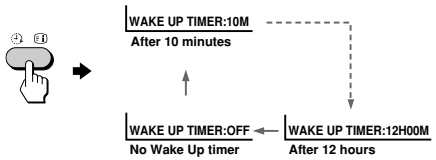
- You can also use SELECT and ◿ +/– on the TV to select the on-screen display language.

continued

Setting the Wake Up timer

1 Press ◴ until the desired period of time appears.

The Wake Up timer starts immediately after you have set it.



2 Select the program number or video input you want to display when you wake up.

3 Press I/⏻ or set the Sleep timer if you want the TV to turn off automatically.

The ◴ indicator on the TV lights up orange.

To cancel the Wake Up timer

Press ◴ until "WAKE UP TIMER: OFF" appears or turn off the TV's main power.

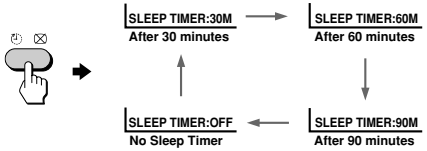
Note

- If no buttons or controls are pressed for more than two hours after the TV is turned on using the Wake Up timer, the TV automatically goes into the standby mode. To continue watching the TV, press any button or control on the TV or the remote.

Setting the Sleep timer

Press ◴ until the desired period of time appears.

The Sleep timer starts immediately after you have set it.



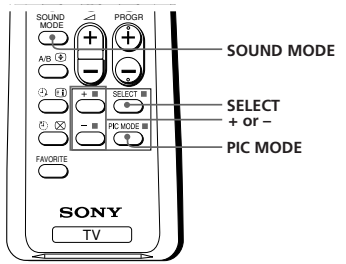
To cancel the Sleep timer

Press ◴ until "SLEEP TIMER: OFF" appears or turn the TV off.

Customizing the picture and sound

You can customize the picture and sound by selecting the picture and sound modes or by adjusting its settings.

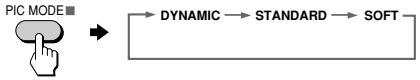
You can change the sound effect by selecting the surround mode.



Selecting the picture and sound modes

To select the picture mode

Press PIC MODE repeatedly until you get the desired picture mode.



Select	To
"DYNAMIC"	view high contrast pictures.
"STANDARD"	view normal contrast pictures.
"SOFT"	view mild pictures.

To select the sound mode

Press SOUND MODE repeatedly until you get the desired sound mode.

Select	To
"DYNAMIC"	listen to dynamic and clear sound that emphasizes the low and high sound.
"DRAMA"	listen to sound that emphasizes vocals and background music.
"SOFT"	listen to soft sound.

continued

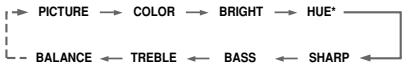
KV-XA25P52A
RM-952

Customizing the picture and sound (continued)

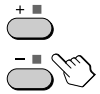
Adjusting the picture and sound settings

1 Press SELECT until the desired setting appears.

Each time you press SELECT, the setting item will change as follows:



2 Press + or – to adjust the item.



3 To adjust other items, repeat steps 1 to 2.

* "HUE" can be adjusted for the NTSC system only.

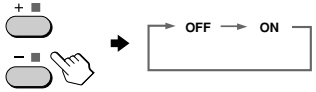
Notes

- When you select a picture or sound mode, the adjusted settings will be reset according to the selected mode.
- You can also use SELECT and ◿ +/– on the TV to adjust the picture and sound settings.

Selecting the wide mode

1 Press SELECT repeatedly until "WIDE MODE" appears.

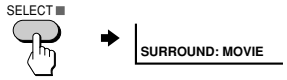
2 Press + or – to select "ON".



Select	To
"ON"	change the picture size when receiving wide mode (16:9) picture signal.
"OFF"	turn off the wide mode.

Selecting the surround mode

1 Press SELECT repeatedly until "SURROUND" appears.

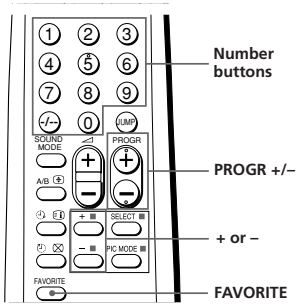


2 Press + or – to select the desired surround sound.

Select	To
"MOVIE"	listen to sound that spreads out over a large area, giving the feeling of being at a movie theatre.
"MUSIC"	listen to the sound that gives the feeling of being at a live concert.
"OFF"	turn off the surround sound.

Viewing your favorite channels

You can display six of your favorite channels for quick and easy selection. You can program the favorite channel as well.

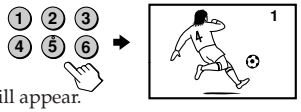


Selecting a favorite channel

1 Press FAVORITE.

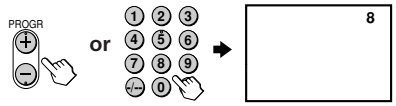
2 Press the number button from 1 to 6 to select the desired favorite channel.

When you use the "FAVORITE CH" feature for the first time, six preset channels will appear.



Programming the favorite channel

1 Press PROGR +/– or number buttons to select the program number you want to program (e.g. program number 8).



2 Press SELECT until "FAVORITE CH SETUP" appears.

3 Press + or – to select the favorite channel you want to program (e.g. ③).

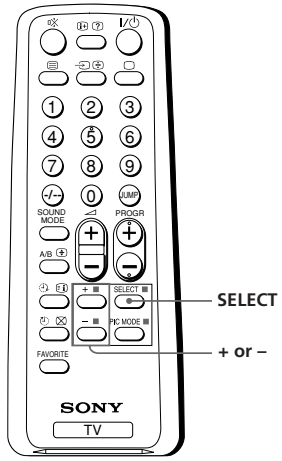
4 Press SELECT.

The selected favorite channel (e.g.,③) turns red for about one second.

5 To program other favorite channels, repeat steps 1 to 4.

Blocking the channels (CHILD LOCK)

You can lock some program numbers to prevent children from watching certain channels by using the buttons on the remote control.



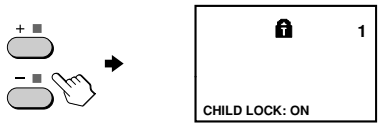
1 Select the program number you want to lock.

2 Press SELECT until "CHILD LOCK" appears on the screen.

3 Press + or – to select "ON".

The 🔒 symbol appears on the screen.

To cancel, press + or – to select "OFF". The 🔒 symbol disappears from the screen.



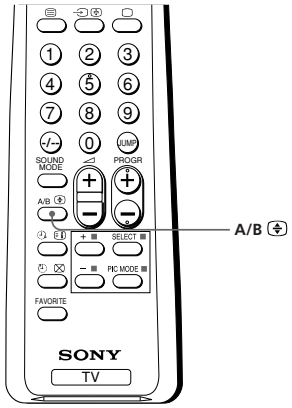
Note

- If you preset a locked program number, that particular program number will be unlocked automatically.

KV-XA25P52A
RM-952

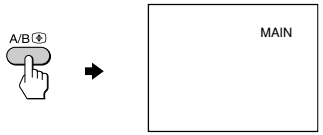
Enjoying bilingual programs

You can enjoy bilingual programs of A2 bilingual system by using the A/B button.



Press A/B repeatedly until you receive the sound you want.

The on-screen display changes to show the selected sound.



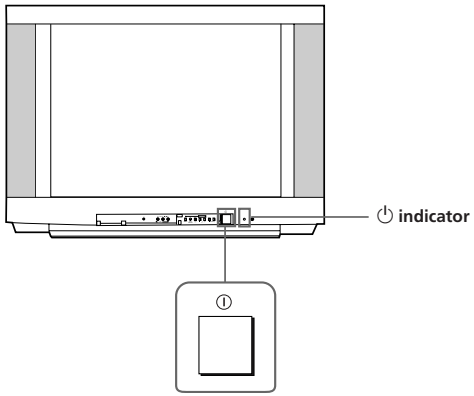
When receiving an A2 program

Broadcasting	On-screen display (Selected sound)
A2 bilingual	MAIN (Main sound) → SUB (Sub sound)

Self-diagnosis function

Your TV is equipped with a self-diagnosis function. If there is a problem with your TV, the ⏻ indicator flashes red. The number of times the ⏻ indicator flashes indicates the possible causes.

Front of TV



1 Check that the ⏻ indicator flashes red several times between three second intervals.

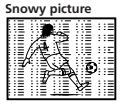
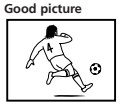
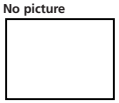
2 Count the number of times the ⏻ indicator flashes.

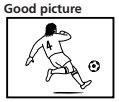
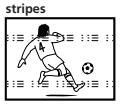
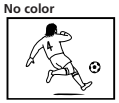
3 Press ⏻ (main power) to turn off your TV.

4 Inform your nearest Sony service center about the number of times the ⏻ indicator flashes.
Be sure to note the model name and serial number located on the rear of your TV.

Troubleshooting

If you find any problem while viewing your TV, please check the following guide. If any problem persists, contact your Sony dealer .

Symptom	Possible cause	Solutions	Page
Snowy picture 	• Connection is loose or the cable is damaged.	• Check the antenna cable and connection on the TV, VCR and on the wall.	4
	• Channel presetting is inappropriate or incomplete.	• Press SELECT until “MANUAL PROGRAM” appears on the screen, then preset the channel again.	10
Noisy sound	• The antenna type is inappropriate.	• Check the antenna type (VHF/UHF). Contact a Sony dealer for advice.	–
	• The antenna direction is inappropriate.	• Adjust the antenna direction. Contact a Sony dealer for advice.	–
	• Signal transmission is low.	• Try using a booster.	–
Distorted picture Noisy sound	• Broadcast signals are too strong.	• Turn off or disconnect the booster if it is in use.	–
Good picture  Noisy sound	• The selected sound is inappropriate.	• If the sound of some channels are noisy, select the channels, then press A/B to select the main sound.	20
No picture  No sound	• The power cord, antenna or VCR is not connected.	• Check the power cord, antenna and the VCR connections.	4
	• The TV is not turned on.	• Press I/⏻ (power). • Press ⏻ (main power) on the TV to turn off the TV for about five seconds, then turn it on again.	12 12

Symptom	Possible cause	Solutions	Page
Good picture  No sound	• The volume level is too low.	• Press + to increase the volume level.	12
	• The sound is muted.	• Press 🔇 to cancel the muting.	13
Dotted lines or stripes 	• There is local interference from cars, neon signs, hair dryers, power generators, etc.	• Do not use a hair dryer or other equipment near the TV. • Adjust the antenna direction for minimum interference. Contact a Sony dealer for advice.	– –
Double images or “ghosts”	• Broadcast signals are reflected by nearby mountains or buildings.	• Use a highly directional antenna. • Use the fine tuning (FINE) function.	– 11
	• The antenna direction is inappropriate.	• Adjust the antenna direction. Contact a Sony dealer for advice.	–
	• Use of a booster is inappropriate.	• Turn off or disconnect the booster if it is in use.	–
No color 	• The color level setting is too low.	• Press SELECT until “COLOR” appears on the screen, then press + or – to adjust the color level.	16
	• The color system setting is inappropriate.	• Press SELECT until “COLOR SYS ” appears on the screen, then check the color system setting (usually set this to “AUTO”).	11
	• The antenna direction is inappropriate.	• Adjust the antenna direction. Contact a Sony dealer for advice.	–
Abnormal color patches	• The magnetic disturbance from external speakers or other equipment, or the direction of the earth’s magnetic field may affect the TV.	• Keep external speakers or other electrical equipment away from the TV. Do not move the TV while the TV is turned on. Press ⏻ (main power) on the TV to turn off the TV for about 15 minutes, then turn it on again.	–

continued

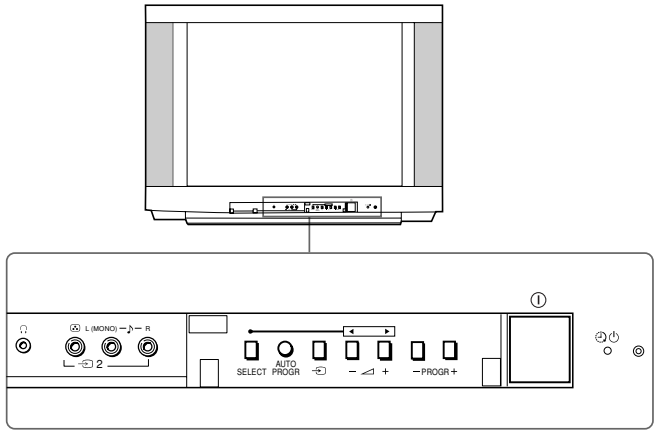
KV-XA25P52A
RM-952

Troubleshooting (continued)

Symptom	Possible cause	Solutions	Page
Picture slant	• The magnetic disturbance from external speakers or other equipment, or the direction of the earth's magnetic field may affect the TV.	• Keep external speakers or other electrical equipment away from the TV. • Press SELECT until "PIC ROTATION" appears on the screen, then press + or – to adjust the picture position until it is optimal.	– 13
Lines moving across the TV screen.	• There is interference from external sources, e.g., heavy machineries, nearby broadcast station.	• Use the fine tuning (FINE) function.	11
The ⏻ indicator on your TV flashes red several times between three second intervals.	• Your TV may need service.	• Contact your nearest Sony service center.	21
TV cabinet creaks.	• Changes in room temperature sometimes make the TV cabinet expand or contract, making a noise. This does not indicate a malfunction.	—	–
A "boom" sound is heard when the TV is turned on.	• The TV's demagnetizing function is working. This does not indicate a malfunction.	—	–

Overview of controls

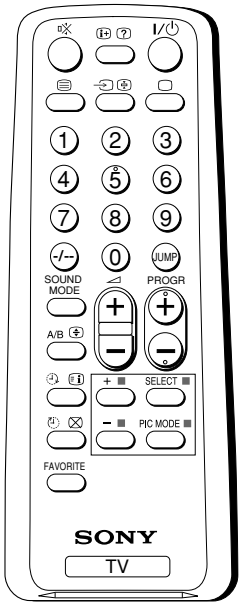
TV front panel



Button	Function	Page
AUTO PROGR	Preset channels automatically.	5
SELECT	Select the desired item.	11
PROGR +/–	Select program number.	12
⏻	Turn off completely or turn on the TV.	12
◢ +/–	Adjust volume.	12
⏻	Standby indicator.	12
⏎	Select TV or video input.	13
🕘	Wake Up indicator.	14
🎧	Headphone jack.	–

continued

Remote Control



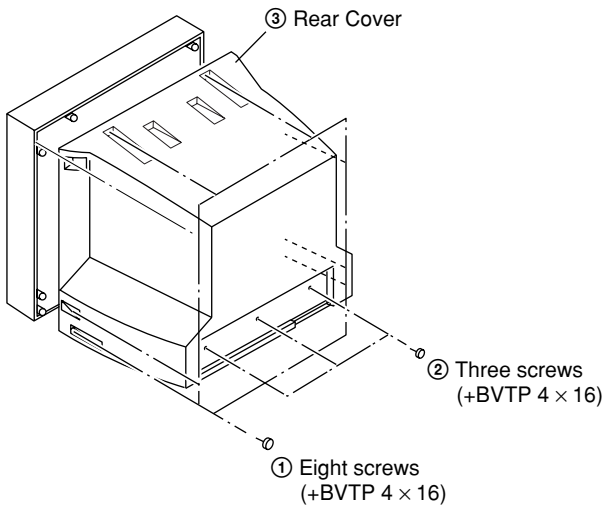
The names/symbols of buttons on the remote are indicated in different colors to represent the available functions.

Label color	Button function
White	For general TV operations
Green	For Teletext operations

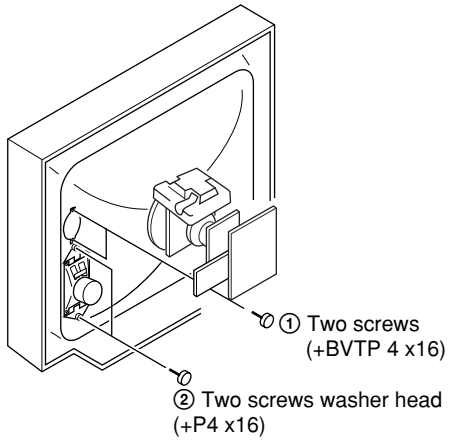
Button	Function	Page
SELECT	Select the desired item.	10
+/–	Adjust value.	10
PROGR +/–	Select program number.	12
0 – 9, -/--	Input numbers.	12
+/–	Adjust volume.	12
I/⏻	Turn off temporarily or turn on the TV.	12
	Select TV or video input.	13
	Display the TV program.	13
	Mute the sound.	13
	Display on-screen information.	13
JUMP	Jump to previous program number.	13
Timer operations		
	Set TV to turn on automatically.	14
	Set TV to turn off automatically.	14
PIC MODE	Select picture mode.	15
SOUND MODE	Select sound mode.	15
FAVORITE	Display favorite channels.	18
Bilingual operations		
A/B	Select bilingual mode.	20
Teletext operations		
■ (red, green, yellow, blue)	Not function for your TV.	–

SECTION 2
DISASSEMBLY

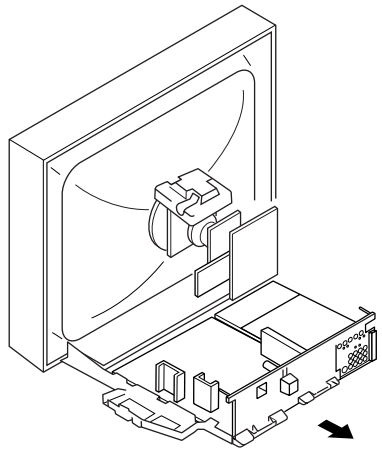
2-1. REAR COVER REMOVAL



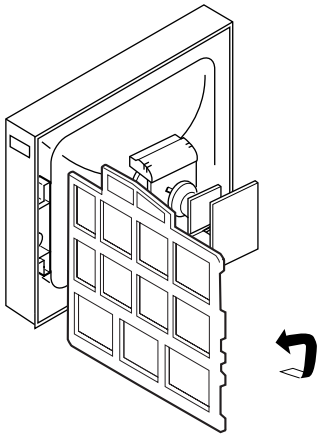
2-2. SPEAKER REMOVAL



2-3. CHASSIS ASSY REMOVAL



2-4. SERVICE POSITION

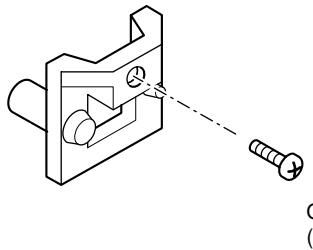


Note: Undress necessary wires that creates tension while placing the chassis into Service Position.

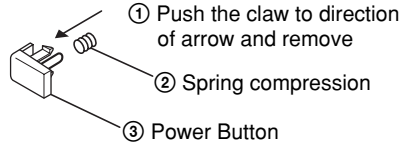
2-5. REPLACEMENT OF PARTS

For replacement of the Multi Button and Light Guide, unscrew them, exchange with the new parts, and fix them with screws (+BVTP) respectively.

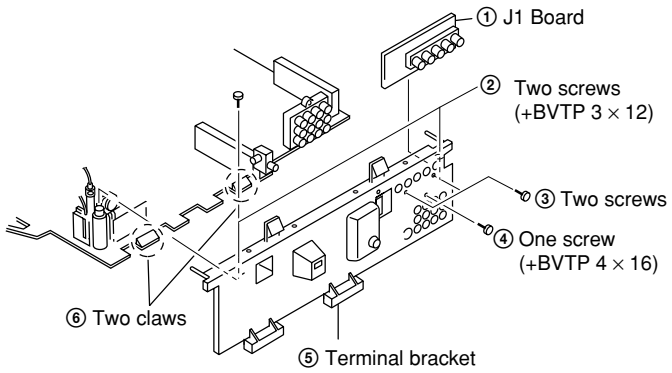
2-5-1. REPLACEMENT OF MULTI BUTTON



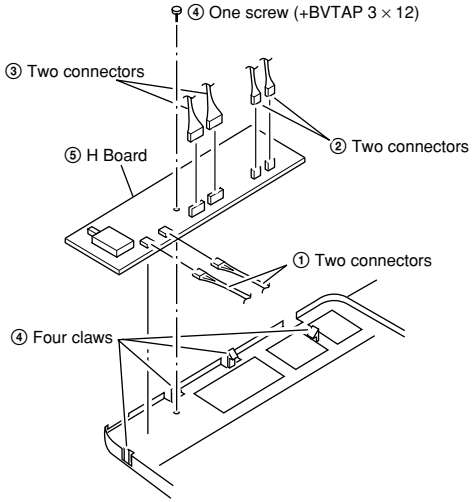
2-5-2. REPLACEMENT OF LIGHT GUIDE



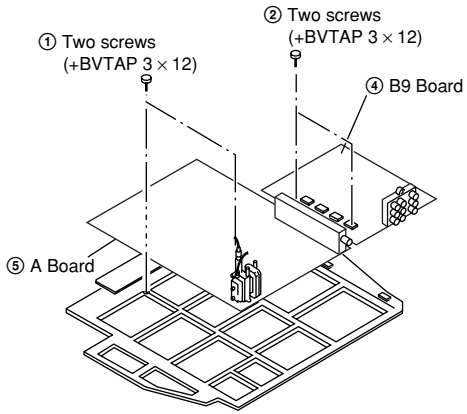
2-6. J1 BOARD AND TERMINAL BRACKET REMOVAL



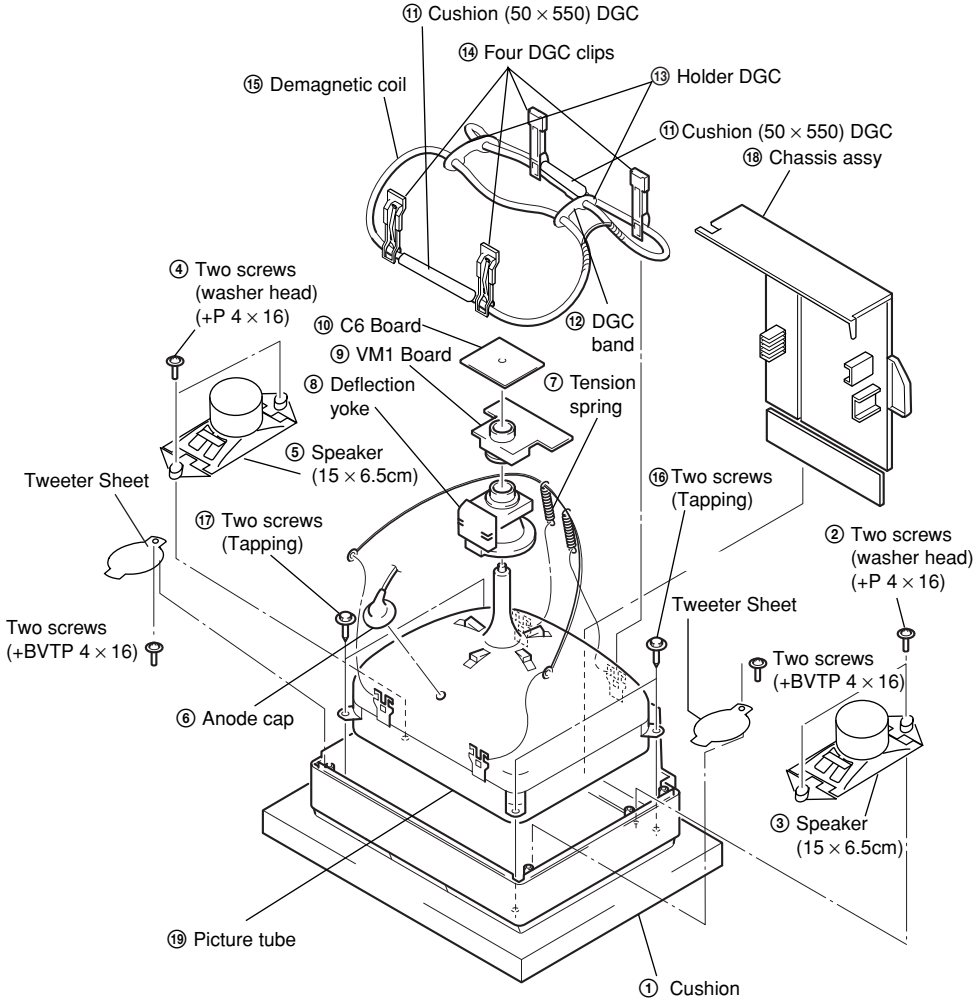
2-7. H BOARD REMOVAL



2-8. A AND B9 BOARDS REMOVAL



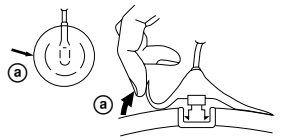
2-9 PICTURE TUBE REMOVAL


⑪ Cushion (50 × 550) DGC
⑭ Four DGC clips
⑮ Demagnetic coil
⑬ Holder DGC
⑪ Cushion (50 × 550) DGC
⑱ Chassis assy
④ Two screws (washer head) (+P 4 × 16)
⑩ C6 Board
⑨ VM1 Board
⑫ DGC band
⑧ Deflection yoke
⑦ Tension spring
⑤ Speaker (15 × 6.5cm)
Tweeter Sheet
⑯ Two screws (Tapping)
⑰ Two screws (Tapping)
② Two screws (washer head) (+P 4 × 16)
Tweeter Sheet
Two screws (+BVTP 4 × 16)
Two screws (+BVTP 4 × 16)
⑥ Anode cap
③ Speaker (15 × 6.5cm)
⑲ Picture tube
① Cushion

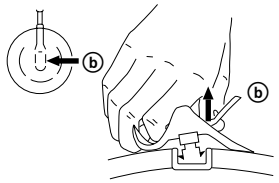
• REMOVAL OF ANODE-CAP

NOTE : After removing the anode, short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon paint on the CRT.

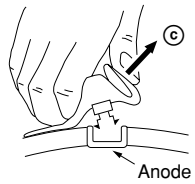
• REMOVING PROCEDURES



① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ.



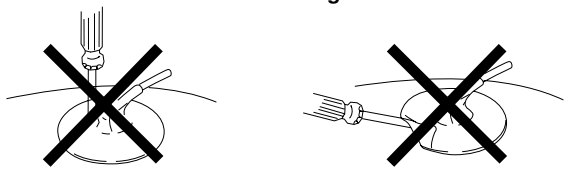
② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ.



③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow ⓒ.

• HOW TO HANDLE AN ANODE-CAP

① Do not damage the surface of anode-caps with sharp shaped objects.
② Do not press the rubber too hard so as not to damage the inside of anode-cap. A metal fitting called the shatter-hook terminal is built into the rubber.
③ Do not turn the foot of rubber over too hard. The shatter-hook terminal will stick out or damage the rubber.



SECTION 3
SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

Controls and switches should be set as follows unless otherwise noted:

PICTURE control ..... normal
BRIGHTNESS control ..... normal

Perform the adjustments in the following order :

1. Beam Landing
2. Convergence
3. Focus
4. White Balance

Note : Test Equipment Required.

1. Color-bar/Pattern Generator
2. Degausser
3. Oscilloscope

Preparation :

- In order to reduce the influence of geomagnetism on the set's picture tube, face it east or west.
- Switch on the set's power and degauss with the degausser.

3-1. BEAM LANDING

1. Input a white signal with the pattern generator.
   Contrast } normal
   Brightness }
2. Position neck assy as shown in Fig3-2.
3. Set the pattern generator raster signal to a green raster.
4. Move the deflection yoke to the rear and adjust with the purity control so that the green is at the center and the blue and the red take up equally sized areas on each side.
   (See Figures 3-1 through 3-4.)
5. Move the deflection yoke forward and adjust so that the entire screen is green. (See Figure 3-2.)
6. Switch the raster signal to blue, then to red and verify the condition.
7. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws and DY spacers.
8. If the beam does not land correctly in all the corners, use a magnet to adjust it.
   (See Figure 3-5.)

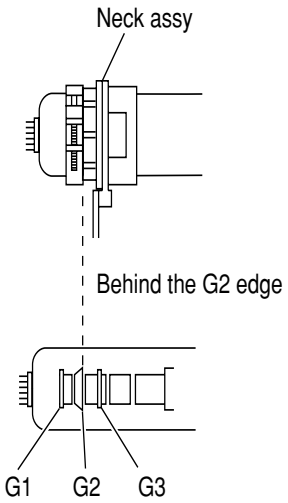


Fig. 3-1

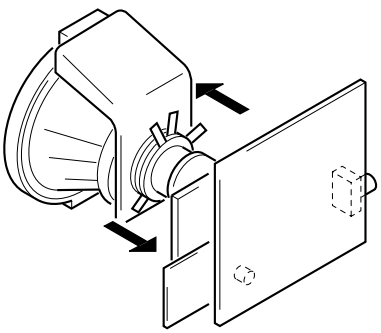


Fig. 3-2

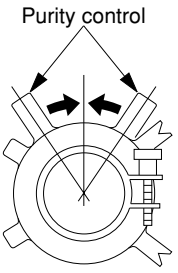


Fig. 3-3

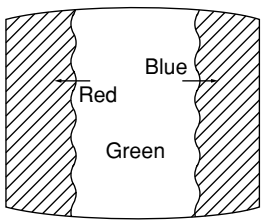


Fig. 3-4

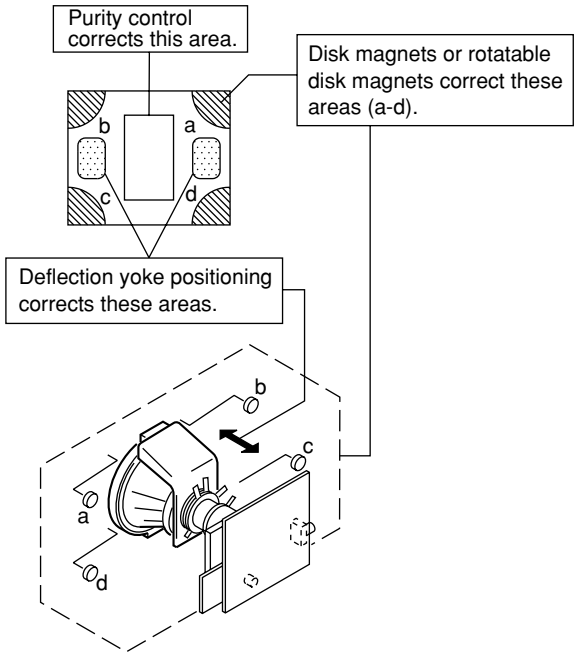


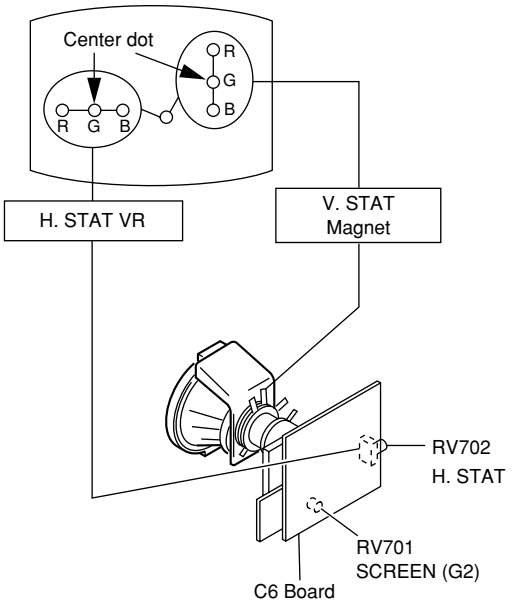
Fig. 3-5

3-2. CONVERGENCE

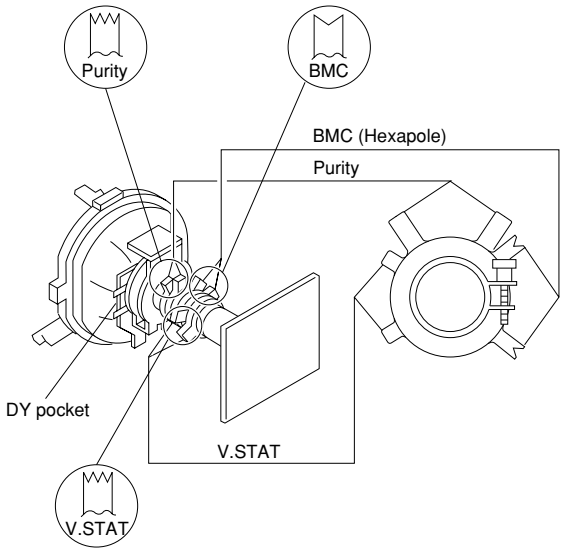
Preparation :

- Before starting this adjustment, adjust the focus, horizontal size and vertical size.
- Receive dot/hatch signal.
- Pic mode: Personal (Pic 90%, Brightness 50%, Col 50%, Hue 50%, Shp 50%)

(1) Horizontal and Vertical Static Convergence

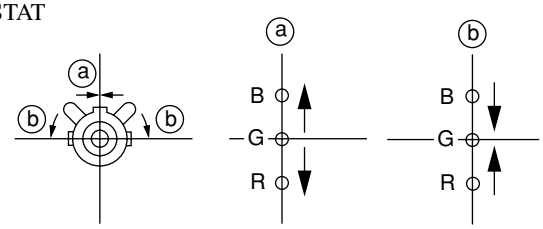


1. (Moving horizontally), adjust the H.STAT control so that the red, green and blue dots are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green and blue dots are on top of each other at the center of the screen.
3. If the H.STAT variable resistor cannot bring the red, green and blue dots together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V.STAT magnet in the manner given below.
   (In this case, the H.STAT variable resistor and the V.STAT magnet influence each other, so be sure to perform adjustments while tracking.)

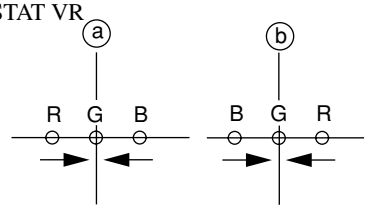


- Operation of V.STAT magnet

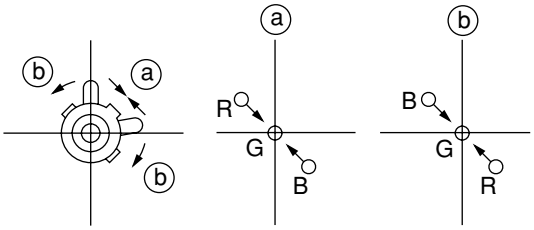
① V. STAT



② H. STAT VR

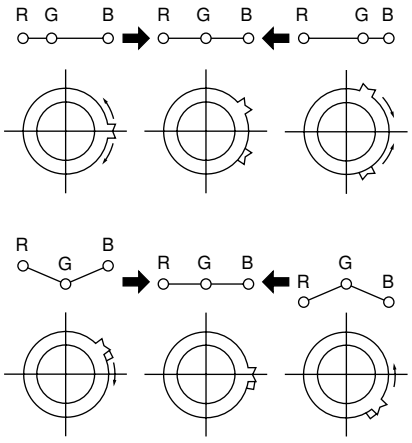


③



④ BMC (Hexapole) Magnet.

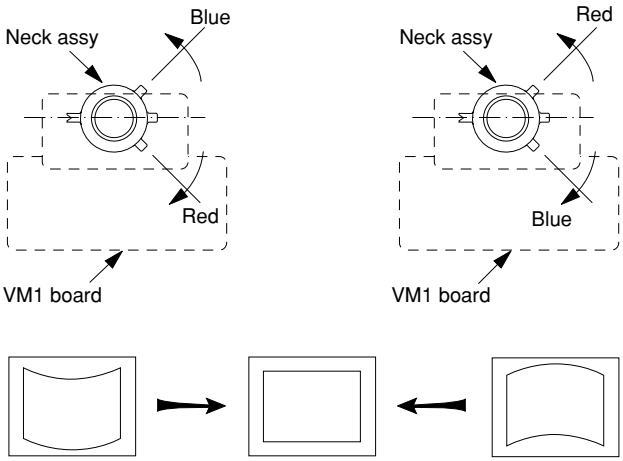
If the red, green and blue dots are not balanced or aligned, then use the BMC magnet to adjust in the manner described below.



⑤ Y separation axis correction magnet adjustment.

1. Receive the cross-hatch signal and adjust [PICTURE] to [MIN] and [BRIGHTNESS] to [STANDARD] .

2. Adjust the Y separation axis correction magnet on the neck assembly so that the horizontal lines at the top and bottom of the screen are straight.

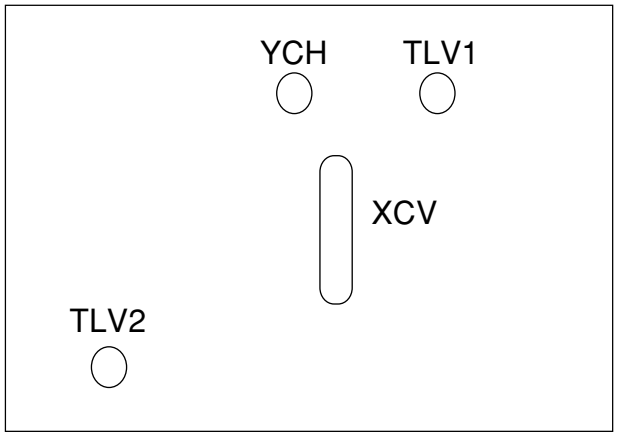


Note

1. The Red and Blue magnets should be equally far from the horizontal center line.
2. Do not separate the Red and Blue magnets too far. (Less than 8 mm)

TLV	Rotate	TLV-2	VOL (29”, 34”) on DY
Rotate	TLV		VOL (25”) on DY
XCV	Rotate	XCV	Adj core on DY
YCH	Rotate	YCH	VOL on DY
TLH	Insert	TLH	Correction Plate to DY Pocket (Left or Right)

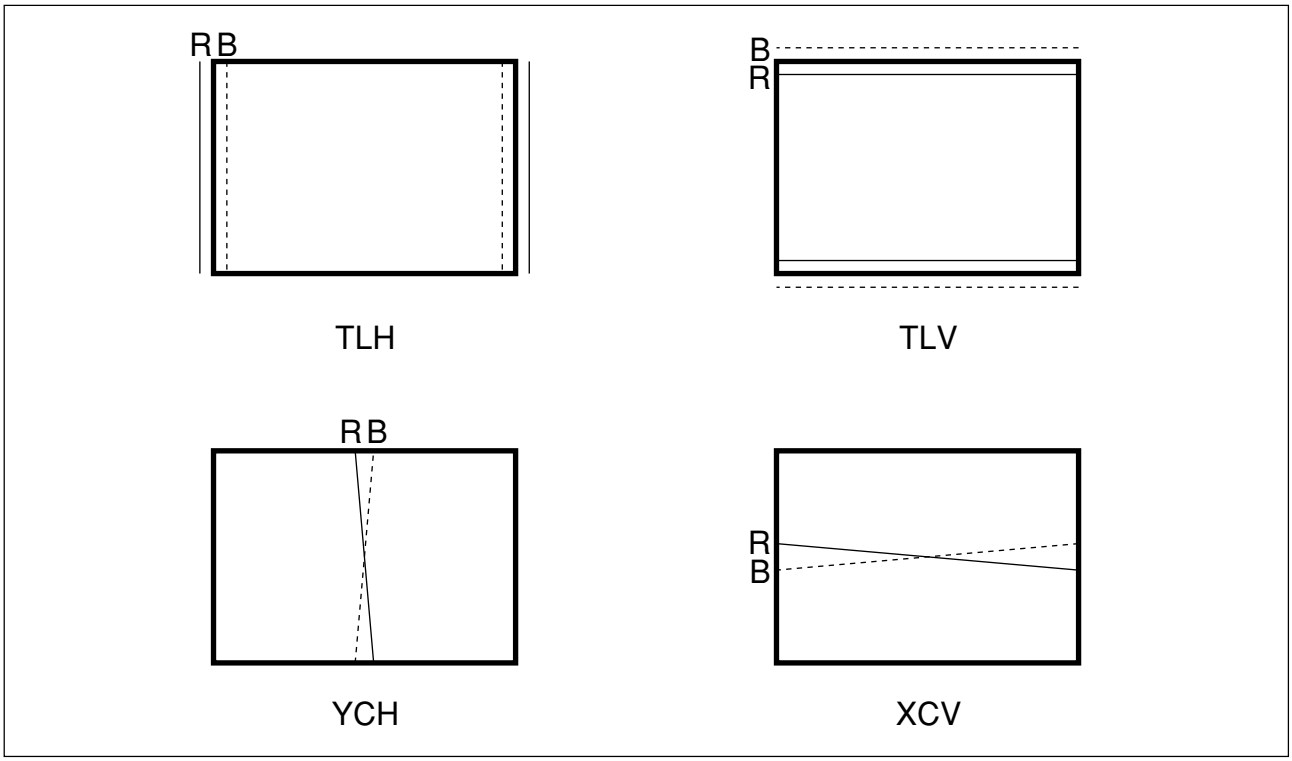
ON DY:



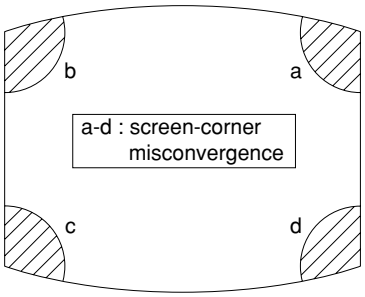
(2) Dynamic Convergence Adjustment

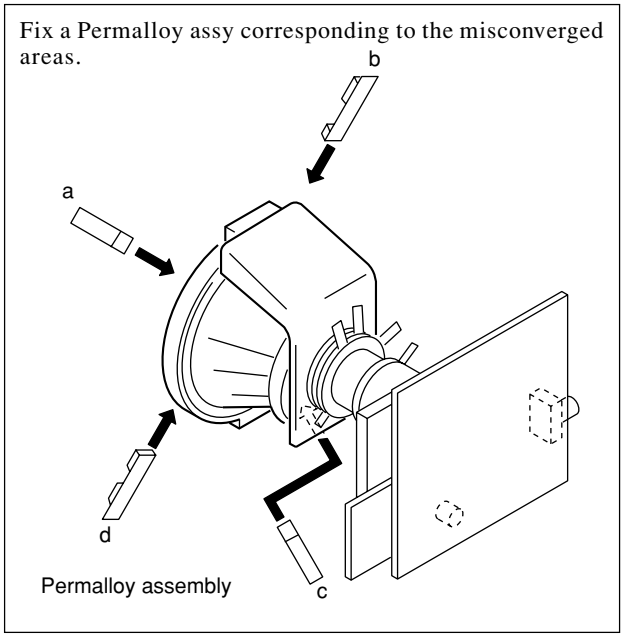
Preparation:

- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence



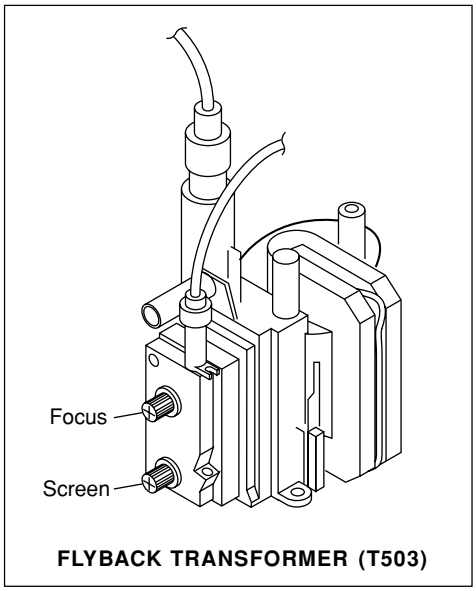
(3) Screen-corner Convergence





3-3. FOCUS ADJUSTMENT

Focus adjustment should be completed before W/B adjustment.



FLYBACK TRANSFORMER (T503)

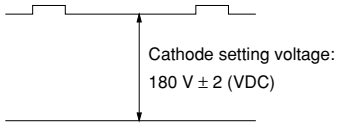
FOCUS ADJUSTMENT

1) Receive digital monoscope pattern.
2) Set "AV CONTROL" to "DYNAMIC"
3) a) Adjust FOCUS VR so that center of the screen becomes just focus.
4) Change the receiving signal to white pattern and blue back.
5) Confirm MAGENTA RING is not noticeable,
   Incase magenta is very obvious, adjust a FOCUS VR to take balance between MAGENTA RING and FOCUS.

3-4. G2 (SCREEN) AND WHITE BALANCE ADJUSTMENTS

1. G2 (SCREEN) ADJUSTMENT

1) Set the PICTURE to normal.
2) Put to VIDEO input mode without signals.
3) Connect R, G and B of the C6 board cathode to the oscilloscope.
4) Adjust BRIGHTNESS to obtain the cathode voltage to the value below.
5) Adjust G2 (screen) on the FBT until picture shows the point before cut off.

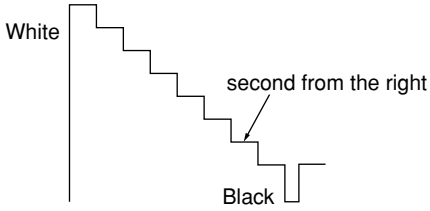


2. WHITE BALANCE ADJUSTMENT

1) Set to Service Mode (Refer Section 4-1: ADJUSTMENTS WITH COMMANDER).
2) Input white raster signal.
3) Set the PICTURE to minimum.
4) Select GCT (WHB 4) and BCT (WHB 5) with [1] and [4], and adjust the level with [3] and [6] for the best white balance.
5) Set the PICTURE to maximum.
6) Select GDR (WHB 1) and BDR (WHB 2) with [1] and [4], and adjust the level with [3] and [6] for the best white balance.
7) Write into the memory by pressing [MUTING] then [0].

3. SUB BRIGHT ADJUSTMENT

1) Set to service mode.
2) Input a staircase signal of black to white from the pattern generator.
3) BRIGHTNESS .... 50%.
   PICTURE ..... MINIMUM
4) Select SBR (WHB7) with [1] and [4], and adjust SBR (WHB7) level with [3] and [6] so that the second stripe from the right is dimly lit.



SECTION 4
CIRCUIT ADJUSTMENTS

4-1. ADJUSTMENTS WITH COMMANDER

Service adjustments to this model can be performed using the supplied Remote Commander RM-952.

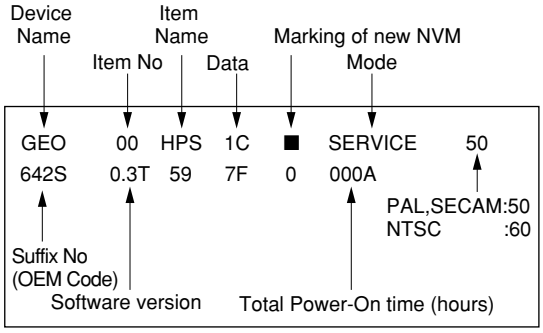
a. ENTERING SERVICE MODE

With the unit on standby

→ [DISPLAY] → [5] → [VOL (+)] → [POWER]

This operation sequence puts the unit into service mode.

The screen display is :



b. METHOD OF CANCELLATION FROM SERVICE MODE

Set the standby condition (Press [POWER] button on the commander), then press [POWER] button again, hereupon it becomes TV mode.

c. METHOD OF WRITE INTO MEMORY

1) Set to Service Mode.
2) Press [1] (UP) and [4] (DOWN), to select the adjustment.
4) Press [MUTING] button to indicate WRITE on the screen.
5) Press [0] button to write into memory.

d. MEMORY WRITE CONFIRMATION METHOD

1) After adjustment, pull out the plug from AC outlet, and then plug into AC outlet again.
2) Turn the power switch ON and set to Service Mode.
3) Call the adjusted items again to confirm adjustments were made.

[1], [4] ↓	Select the adjustment item.
[3], [6] ↓	Raise/lower the data value.
[MUTING] ↓	Writes.
[0]	Executes the writing.

[7], [0]	All the data becomes the values in memory.
[8], [0]	All user control goes to the standard state.
[5], [0]	Service data initialization (Be sure not to use usually.)
[MUTING] + [0]	Write 50Hz adjustment data to 60Hz, or vice versa.
[2], [0]	Copy the data.

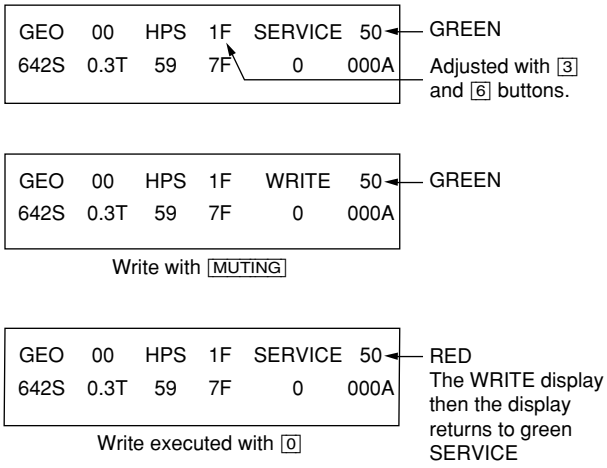
4-2. ADJUSTMENT METHOD

Item Number 00 of device GEO

This explanation uses H-Position as an example.

1. Select "GEO 00 HPS" with the [1] and [4] buttons.
2. Raise/lower the data with the [3] and [6] buttons.
3. Select the optimum state. (The standard is 1F for PAL reception.)
4. Write with the [MUTING] button. (The display changes to WRITE.)
5. Execute the writing with the [0] button. (The WRITE display will be changed to red color while excuting, and back to SERVICE.)

Example on screen display :-


GEO 00 HPS 1F SERVICE 50
642S 0.3T 59 7F 0 000A
GREEN
Adjusted with [3] and [6] buttons.
GEO 00 HPS 1F WRITE 50
642S 0.3T 59 7F 0 000A
GREEN
Write with [MUTING]
GEO 00 HPS 1F SERVICE 50
642S 0.3T 59 7F 0 000A
RED
The WRITE display then the display returns to green SERVICE
Write executed with [0]

Use the same method for all Items. Use [1] and [4] to select the adjustment item, use [3] and [6] to adjust, write with [MUTING], then execute the write with [0].

Note : 1. In [WRITE], the data for all items are written into memory together.
2. For adjustment items that have different standard data between 50Hz or 60Hz, be sure to use the respective input signal after adjustment.

Adjustment Item Table

TVG	Functionality		Initial Data	Data Range	Function	Note for different data	Initial value (detailed)
Category	No.	Name					25'
GEO	00	HPS	7	3F	H Position	Normal (50/60)/Wide (50/60)	(IE/16)/(1E/16)
	01	HSZ	1F	3F	H Size	Normal (50/60)/Wide (50/60)	1F
	02	PAP	1F	3F	Pin Amp	Normal (50/60)/Wide (50/60)	1F
	03	TLT	7	0F	Trapezium	Normal (50/60)/Wide (50/60)	07
	04	VPS	1F	3F	V Position	Normal (50/60)/Wide (50/60)	1F
	05	VSZ	1F	3F	V Size	Normal (50/60)/Wide (50/60)	1F
	06	SCO	7	0F	S Correction	Normal (50/60)/Wide (50/60)	07
	07	VLN	7	0F	V Linearity	Normal (50/60)/Wide (50/60)	07
	08	BOW	7	0F	AFC Bow	Normal (50/60)/Wide (50/60)	07
	09	AGL	7	0F	AFC Angle	Normal (50/60)/Wide (50/60)	07
	0A	UPN	1F	3F	Upper Pin	Normal (50/60)/Wide (50/60)	1F
	0B	LPN	1F	3F	Lower Pin	Normal (50/60)/Wide (50/60)	1F
	0C	HBL	0	1	H Blanking on/off		01
	0D	LBL	2	0F	Left H Blanking	Normal (50/60)/Wide (50/60)	(0F/0F)/(0F/0F)
	0E	RBL	0B	0F	Right H Blanking	Normal (50/60)/Wide (50/60)	(00/00)/(00/00)
WHB	00	RDR	25	3F	R Drive	DYNAMIC/others	25/2A
	01	GDR	25	3F	G Drive	DYNAMIC/others	1F
	02	BDR	25	3F	B Drive	DYNAMIC/others	1F
	03	RCT	0A	0F	R Cutoff	SECAM/others	07
	04	GCT	7	0F	G Cutoff	SECAM/others	07
	05	BCT	7	0F	B Cutoff	SECAM/others	07
	06	BMN	15	1F	Brightness Minimum Data		15
	07	SBR	1F	3F	Sub Brightness Control		25
	08	APB	2	3	Sub Bright Ctl SW for PNC #3		02
SAJ	00	PMX	33	3F	Picture Maximum Data	Non-Wide/Wide	33/2E
	01	SHU	8	0F	Sub Hue Control	TV/Video	08
	02	SSH	3	0F	Sub Sharpness Control	TV/Video	05/09
	03	SCL	1F	3F	Sub Color Control	(NTSC/others)/Wide (NTSC/others)	1F
VP	00	EHT	4	0F	EHT Comp	Normal (50/60)/Wide (50/60)	(02/02)/(02/02)
	01	GMA	2	03	Gamma Correction	NON-STD. (NTSC/others)/STD.(NTSC/others)	(02/02)/(01/01)
	02	APG	0	1	Gamma Ctl SW for PNC #3	NON-STD. (NTSC/others)/STD.(NTSC/others)	00
	03	YDL	6	0F	Y Delay	PAL/SECAM/NTSC/DVD	06/09/08/08
	04	SST	1	03	SECAM ID Start Position	SECAM/PAL	01/01
	05	SSP	1	03	SECAM ID Stop Position	SECAM/PAL	01/01
	06	RLM	0	3	RGB Limit		02
	07	SLV	2	03	SECAM ID Level	SECAM/PAL	02/02
	08	SBF	22	3F	SECAM BELL fO	SECAM/PAL	22/22
	09	DYC	1	1	Dynamic Color on/off		01
	0A	ABL	1	1	ABL Mode Switching	STANDARD Always 0	01
	0B	VTH	1	1	ABL Detection Vth Switching		01
	0C	SF0	1	1	FO Switching for Sharpness	NTSC/Others	01/01
	0D	DCX	1	1	DC Trans. Ratio Switching		01
	0E	SHT	1	1	Pre-/Overshoot ratio Switch	NTSC/Others	01/01
	0F	HDW	0	1	H Drive Pulse Width Switch		00

Adjustment Item Table

TVG	Functionality		Initial Data	Data Range	Function	Note for different data	Initial value (detailed)
Category	No.	Name					25'
VP	10	AFC	1	03	AFC Gain Control	TV/Video/Text	01/00/01
	11	HOS	7	0f	H Oscillation		07
	12	HSS	0	1	Slice Level of H Sync Sep.		00
	13	VSS	0	1	Slice Level of V Sync Sep.		00
	14	HMS	1	1	Macro Vision C/m off/on	Normal(50-60)/Wide (50/60)	(01/01)/(01/01)
	15	YUV	0	1	YUV Swicth Control		01
	16	CDV	1	3	CD mode for Video	Video only	01
	17	RON	1	1	R ON	not memorized	01
	18	GON	1	1	G ON	not memorized	01
	19	BON	1	1	B ON	not memorized	01
	1A	PON	1	1	P ON	not memorized	01
	1B	AXN	1	1	AXIS SW	(NTSC/Others)/Wide (NTSC/Others)(Only Dyna)	(01/01)/(01/01)
	1C	RSL	0	1	RGB SEL		00
	1D	VBW	1	3	VBLKW		00
	1E	RFP	0	1	REFP		00
	1F	JMP	0	1	Jump		00
	20	VMC	2	3	VM off		03
AP	00	INF	5	3F	Input Attenuation When surround off		05
	01	INS	0A	3F	Input Attenuation When surround on (xg-only)		0A
	02	SEF	0	0F	Surround Effect Control (XA-ONLY)		00
	03	PH1	3	3	Phase 1 Register Selection		03
	04	PH2	0	3	Phase 2 Register Selection (XG-ONLY)		00
	05	PH3	0	3	Phase 3 Register Selection (XG-ONLY)		00
	06	PH4	0	3	Phase 4 Register Selection (XG-ONLY)		00
	07	BCS	2	3	Bass Center Shift		03/01
	08	TCS	2	3	Treble Center Shift		02
	09	TRF	2	3	RF Treble Offset		02
MSP	00	WST	15	FF	W/G Stereo Threshold		15
	01	WBT	EA	FF	W/G Bilingual Threshold		EC
	02	WLL	5	FF	W/G Monaural Threshold		05
	03	WAC	0	0F	W/G Agreement Count		01
	04	WDL	30	FF	W/G Search Delay		30
	05	NDL	20	FF	NICAM Search Delay		20
	06	SDL	10	FF	Stereo status Read Delay		10
	07	AGC	1	1	AGC Switch Auto/Constant		01
	08	REL	28	3F	AGC Gain at Constant Mode		28
	09	CRM	0	1	Carrier muting on/off		00
	0A	ACO	1	1	Audio Clock out on/off		01
	0B	FP	1B	7F	FM Prescale for non-M system		1B
	0C	FPM	32	7F	FM Prescale for M system		32
	0D	FH	36	7F	FM Prescale for HDEV		36
	0E	FHM	65	7F	FM Prescale for HDEV and M		65
	0F	WGP	2A	7F	W/G Prescale		1C
	10	NIP	6D	7F	NICAM Prescale		7F
	11	ERR	50	FF	Auto FM switch Threshold		50
	12	VOL	6D	FF	Speaker Gain 7000h to 7ff0h		6D

Adjustment Item Table

TVG	Functionality		Initial Data	Data Range	Function	Note for different data	Initial value (detailed)
Category	No.	Name					25'
TXT	00	TXH	0	3	Teletext Horizontal Position		00
	01	TXV	0	3	Teletext Vertical Position		00
OPM	00	OSH	0A	3F	OSD H Position	Option - Misc	0F
	01	COM	1	03	Comb Selection		01/02
	02	APC	1	1	APC Switch		01
	03	TSY	0	03	TV Sys at Auto TV Sys		00
	04	MUT	0	1	No Signal Mute		00
	05	AFM	0	1	Auto FM Switch		01
	06	RFB	0	3	C-BPF Control		00
	07	TVO	0	7	Tilt to V-Angle offset		02
	08	DBL	0	1	Disable Blueback Function		00
	09	SCH	1	7F	CH Selection for Shipping Condition	NTSC Models only	00
	0A	SCA	1	1	Cable/Air selection for shipping condition	NTSC Models only	00
OPB	00	OP1	FF	FF	Optional Bits 1 (see specified pages)	Option - Bits	EF
	01	OP2	62	FF	Optional Bits 2 (see specified pages)		06
	02	OP3	B1	FF	Optional Bits 3 (see specified pages)		B1
	03	OP4	02	FF	Optional Bits 4 (see specified pages)		02

NOTE

- shaded items are fixed data.
- Standard data listed on the Adjustment Item Table are reference values, therefore it may be different for each model and for each mode.
- Note for Different Data — Those are the standard data values written on the microprocessor. Therefore, the data values of the modes and stored respectively in the memory.
  In case of a device replacement, adjustment by rewriting the data value is necessary for some items.

OPTION NOTE

OP1

Item	XTAL 4.43	XTAL 3.58	SECAM	2nd. Lang	B/G	I	D/K	M	HEX
KV-XA25P52A	1	1	0	1	1	0	0	0	D8

NOTE: When Bit 7, 6 & 5 = 000, Only PAL color system is selected.
When Bit 7 is selected, Auto, PAL & NTSC 4.43 Color system is enable.
When Option is single color system, Color system cannot be changed & "AUTO" will not be displayed.

OP2

Item	TOP	NICAM	HDEV	Thai Bil	Dis Fav.	DVD Input	AV Input		HEX
KV-XA25P52A	0	0	0	1	0	1	1	0	16

AV Input 00 = no AV Input 01 = 1 AV Input
10/11 = 2 AV Input
DVD Input Effective only when "AV Input" is set to 2 AV Input
Dis Fav. Disable Favorite Channel (Only Effective For 21" & 14" Models Only)

OP3

Item	PIC Rot*1	2199 Curve*1	Auto PIC	A-TV sys	US ST	AV Mono*1	11 KEY	Color SW*2&*1	HEX
KV-XA25P52A	1	0	1	0	0	0	0	1	A1

PIC Rot*1 PIC Rotation Feature Switch 0 = disabled, 1 = enabled
2199 Curve*1 2199 Volume Curve Selection 0 = Others, 1 = 2199 Volume Curve.
Auto PIC Auto Picture Improvement 0 = inactive, 1 = active
A-TV sys Auto TV System in Auto Program 0 = disabled, 1 = enabled
US ST USA Stereo 0 = disabled, 1 = enabled
AV MONO*1 AV Mono models 0 = Stereo, 1 = Mono
(No Balance & Surround selection)
11 Key Front Key Selection 0 = 7 key model, 1 = 11 key model
Color SW*2&*1 Color Data Selection in Dynamic Mode 0 = 65 (No PIP), 1 = 57 (PIP)

Note: *1 - For XA-21/XG25 Models Only
*2 - For XA-34/29/25 Models Only

OP4

Item	(unused)	(unused)	(unused)	(unused)	(unused)	Vid NTSC 3.58	AP_XG*1	(unused)	HEX
KV-XA25P52A	0	0	0	0	0	0	1	0	02

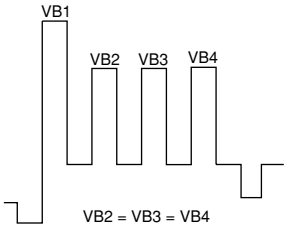
AP_XG*1 To select the XG AP (board B6) 0: No; 1 = Yes

Note: *1 - For XA-21/XG25 Models Only

4-3. PICTURE QUALITY ADJUSTMENTS

SUB COLOR ADJUSTMENT

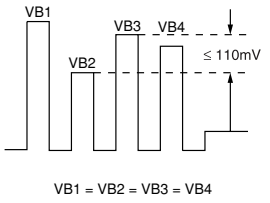
1. Input a PAL color-bar.
2. Set to the following condition:
   PICTURE 100%, BRIGHTNESS 50%, COLOR 50%
3. Connect an oscilloscope to pin ① (B OUT) of CN305, A board.
4. Set to Service Mode and select SAJ 03 'SCL' with [1] and [4] of the commander then adjust to VB2=VB3=VB4 with [3] and [6].
5. Press [MUTING] → [0] of the commander to write the data.
6. Adjust SAJ 03 'SCL' as step 2 to 5 when receiving NTSC color-bar.



VB2 = VB3 = VB4 (Difference is within 70mV)

SUB HUE ADJUSTMENT

1. Select Video.
2. Input a NTSC, color-bar, into Video.
3. Set the following condition:
   PICTURE 100%, BRIGHTNESS 50%, COLOR 50%
4. Connect an oscilloscope to pin ① (B OUT) of CN305, A board.
5. Select SAJ 01 'SHU' with [1] and [4] of the commander by setting to Service Mode and adjust to VB1=VB2=VB3=VB4 with [3] and [6].



The highest level of VB1,VB2,VB3,VB4 must be aligned at the same line. Ideal difference level between VB2 and VB3 should be within ± 110mV.

6. Press [MUTING] → [0] of the commander to write the data.

4-4. DEFLECTION ADJUSTMENT

NORMAL MODE (50Hz)

1. Set to Service Mode.
2. Using the [1] and [4] button, select category GEO (Service Mode).
3. Raise/lower the data using the [3] and [6] buttons.
   Select and adjust the following items to obtain optimum image.

Service Item

GEO :	00	HPS	H POSITION
	01	HSZ	H SIZE
	02	PAP	PIN AMP
	03	TLT	TILT
	04	VPS	V POSITION
	05	VSZ	V SIZE
	06	SCO	S CORRECTION
	07	VLN	V LINEARITY
	08	BOW	AFC BOW
	09	AGL	AFC ANGLE
	0A	UPN	UPPER CORNER PIN
	0B	LPN	LOWER CORNER PIN

WIDE MODE (50Hz)

4. Input PAL color bar.
5. Adjust condition change to WIDE MODE : ON.
6. Using the [1] and [3] button, select category GEO (Service Mode).
7. Copy (item from normal mode (50Hz)) adjusted data for the following item:
   Service Item

GEO :	01	HSZ	H POSITION
	05	VSZ	V POSITION
	06	SCO	S CORRECTION
	07	VLN	V LINEARITY

8. Raise/lower data using [3] and [6] buttons, select and adjust the following items to obtain optimum image.
   Service Item

GEO :	00	HPS	H POSITION
	02	PAP	PIN AMP
	03	TLT	TILT
	04	VPS	V POSITION
	08	BOW	AFC BOW
	09	AGL	AFC ANGLE
	0A	UPN	UPPER CORNER PIN
	0B	LPN	LOWER CORNER PIN

9. After confirm WIDE MODE : ON – OFF.
10. Repeat same steps for NTSC input signal.

NORMAL MODE (60Hz)

11. Input 525/60Hz signal.
12. Using the [1] and [4] buttons select category GEO (Service Mode).
13. Select and adjust the following items to obtain obtimum image.
    Raise/lower the data with the [3] and [6] buttons.
    Service Item

GEO :	00	HPS	H POSITION
	01	HSZ	H SIZE
	02	PAP	PIN AMP
	03	TLT	TILT
	04	VPS	V POSITION
	05	VSZ	V SIZE
	06	SCO	S CORRECTION
	07	VLN	V LINEARITY
	08	BOW	AFC BOW
	09	AGL	AFC ANGLE
	0A	UPN	UPPER CORNER PIN
	0B	LPN	LOWER CORNER PIN

WIDE MODE (60Hz)

14. Input monoscope signal.
15. Adjust condition change to WIDE MODE: ON.
16. Using the [1] and [4] button select category GEO (Service Mode).

17. Copy (item from NORMAL MODE (60Hz)) adjusted data for the following items:

Service Item

GEO :	01	HSZ	H SIZE
	05	VSZ	V SIZE
	06	SCO	S CORRECTION
	07	VLN	V LINEARITY

18. Raise/lower the data with the [3] and [6] buttons. Select and adjust the following items to obtain optimum image.

Service Item

GEO :	00	HPS	H POSITION
	02	PAP	PIN AMP
	03	TLT	TILT
	04	VPS	V POSITION
	08	BOW	AFC BOW
	09	AGL	AFC ANGLE
	0A	UPN	UPPER CORNER PIN
	0B	LPN	LOWER CORNER PIN

19. After confirm WIDE MODE : ON – OFF.

Note:
For Deflection Adjustment, set PICTURE MODE to "SOFT".

4-5. H-TRAPEZOID ADJUSTMENT

1. Receive cross hatch/dot signal.
2. Adjust RV1801 on C6 board to make H-trapezoid distortion best.

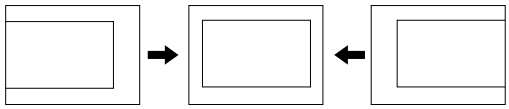
4-6. A BOARD ADJUSTMENT AFTER IC003 (MEMORY) REPLACEMENT

1. Enter to Service Mode.
2. Press commander buttons [5] and [0] (Data Initialize), and [2] and [0] (Data Copy) to initialize the data.
3. Call each item number and check if the respective screen shows the normal picture.
   In cases where items are not well adjusted, rectify the items with fine adjustment.
   Write the data per each item number ([MUTING] + [0]).
4. Select item numbers “OPB0” (OP1), “OPB1” (OP2), “OPB2” (OP3), “OPB3” (OP4) and respectively set the bit per model with command buttons [3] and [6].
5. Press commander buttons [8] and [0] (Test Normal) to return to the data that was set on the shipment from the factory. (This will also cancel Service Mode.)

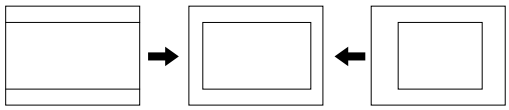
4-7. PICTURE DISTORTION ADJUSTMENT (1)

Item Number 00 – 0B

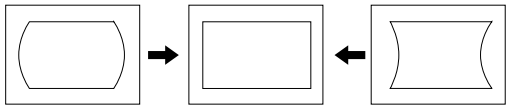
GEO 0 HPS (H POSITION)



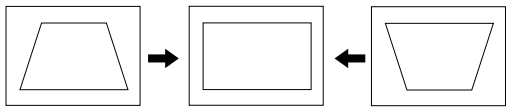
GEO 1 HSZ (H SIZE)



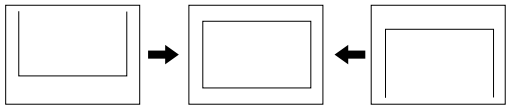
GEO 2 PAP (PIN AMP)



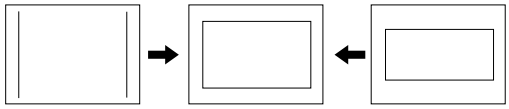
GEO 3 TLT (TRAPEZIUM)



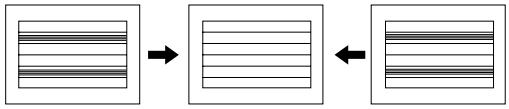
GEO 4 VPS (V POSITION)



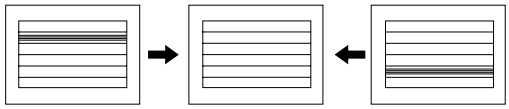
GEO 5 VSZ (V SIZE)



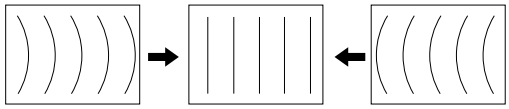
GEO 6 SCO (VERTICAL S-Correction)



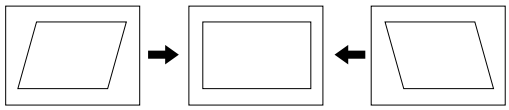
GEO 7 VLN (V LINEARITY)



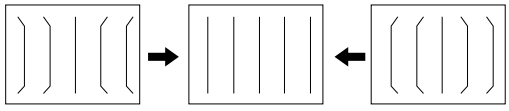
GEO 8 BOW (AFC.BOW)



GEO 9 AGL (AFC.ANGLE)

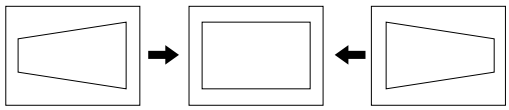


GEO 0A UPN (UPPER CORNER PIN)
GEO 0B LPN (LOWER CORNER PIN)



PICTURE DISTORTION ADJUSTMENT (2)

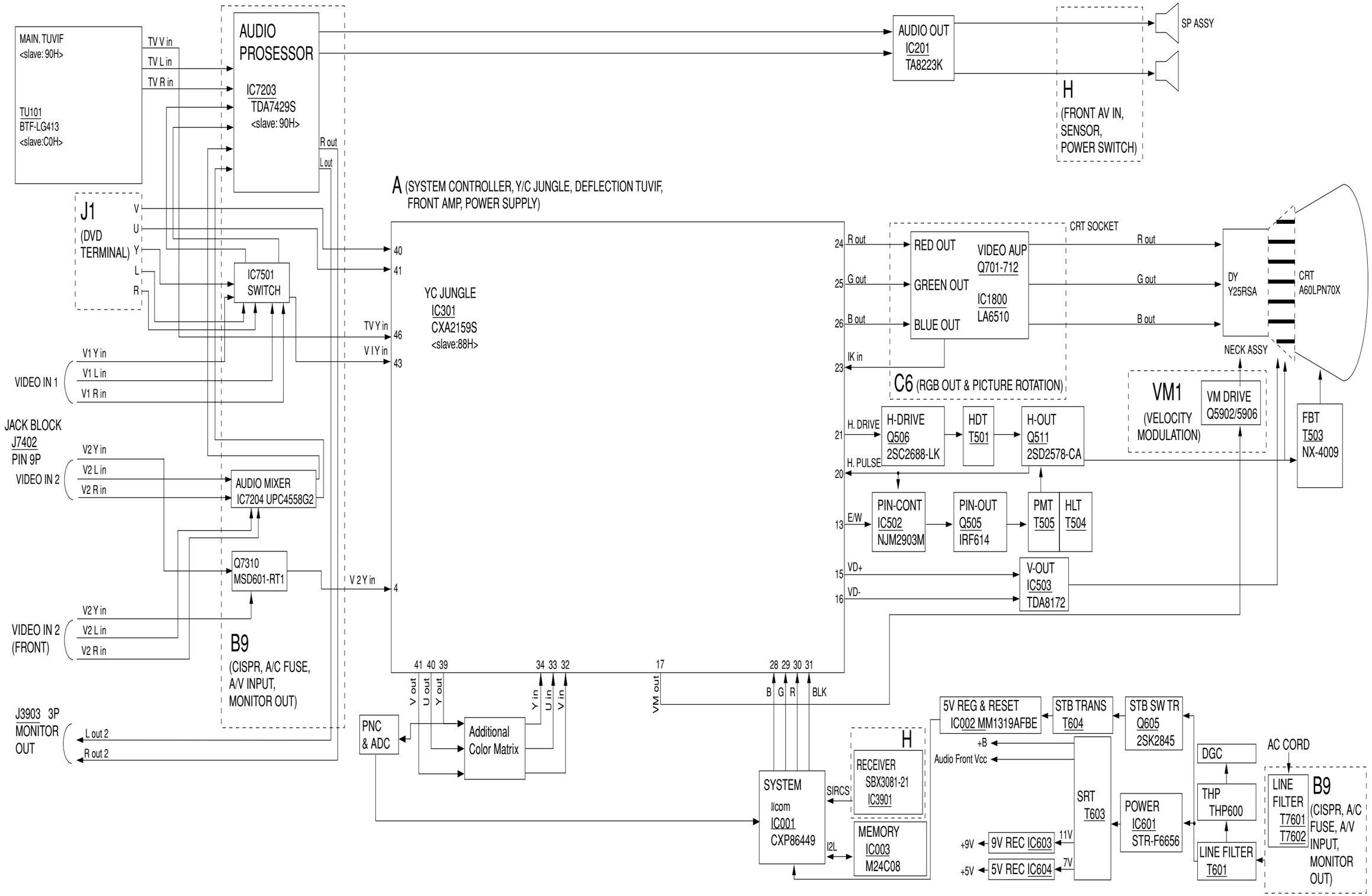
H-TRAPEZOID (Rotate RV1801)



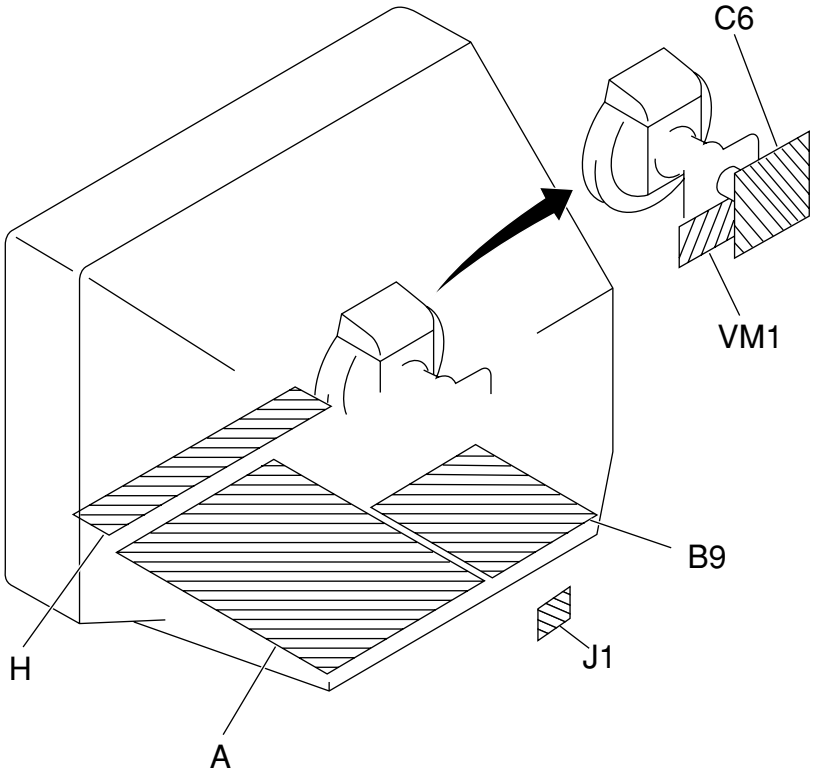
KV-XA25P52A
RM-952

SECTION 5
DIAGRAMS

5-1. BLOCK DIAGRAM



5-2. CIRCUIT BOARDS LOCATION



5-3. SCHEMATIC DIAGRAM

Note:

- All capacitors are in µF unless otherwise noted.
- All electrolytic capacitors are rated at 50V unless otherwise noted.
- All resistors are in ohms.
  kΩ = 1000Ω, MΩ = 1000kΩ
- Indication of resistance which does not have rating electrical power is as follows.

  Pitch: 5 mm
  Rating electrical power 1/4W (CHIP: 1/10W)

- : nonflammable resistor.
- △ : internal component.
- : panel designation or adjustment for rrepair.
- All variable and adjustable resistors have characteristic curve B unless otherwise noted.
- **Redings are taken with a color-bar signal input.**
  no mark : COMMON
  ( ) : PAL
  [ ] : NTSC 3.58
- **Readings are taken with a 10MΩ digital multimeter.**
- **Voltage are dc with respect to ground unless otherwise noted.**
- **Voltage variations may be noted due to normal production tolerances.**
- **All voltage are in V.**
- **✻ : Cannot be measured.**
- **Circled numbers are waveform references.**
- **: B +bus.**
- **: B –bus.**
- **: signal path.**

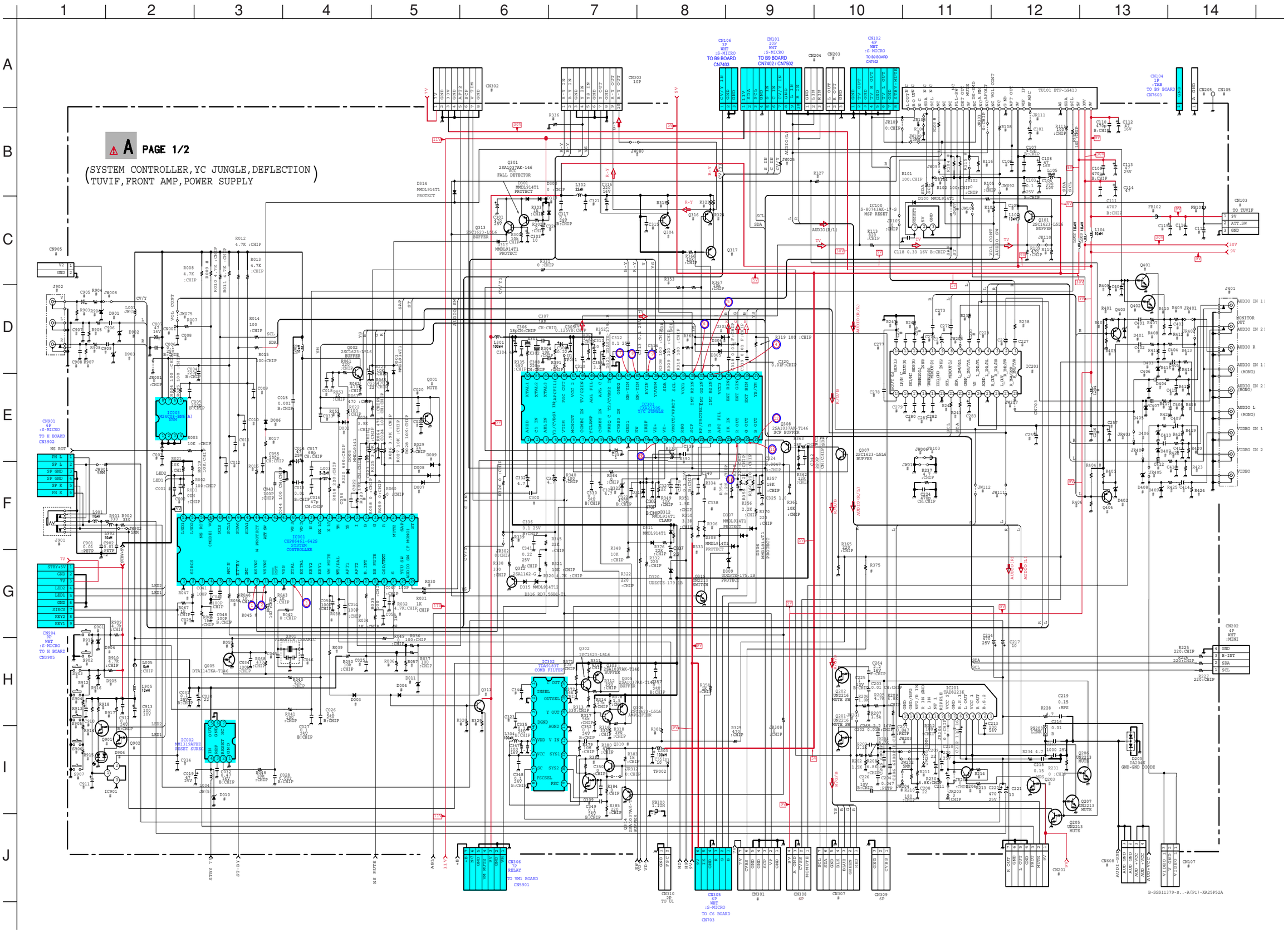
Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
	: ✻	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

Note: The component identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

KV-XA25P52A
RM-952

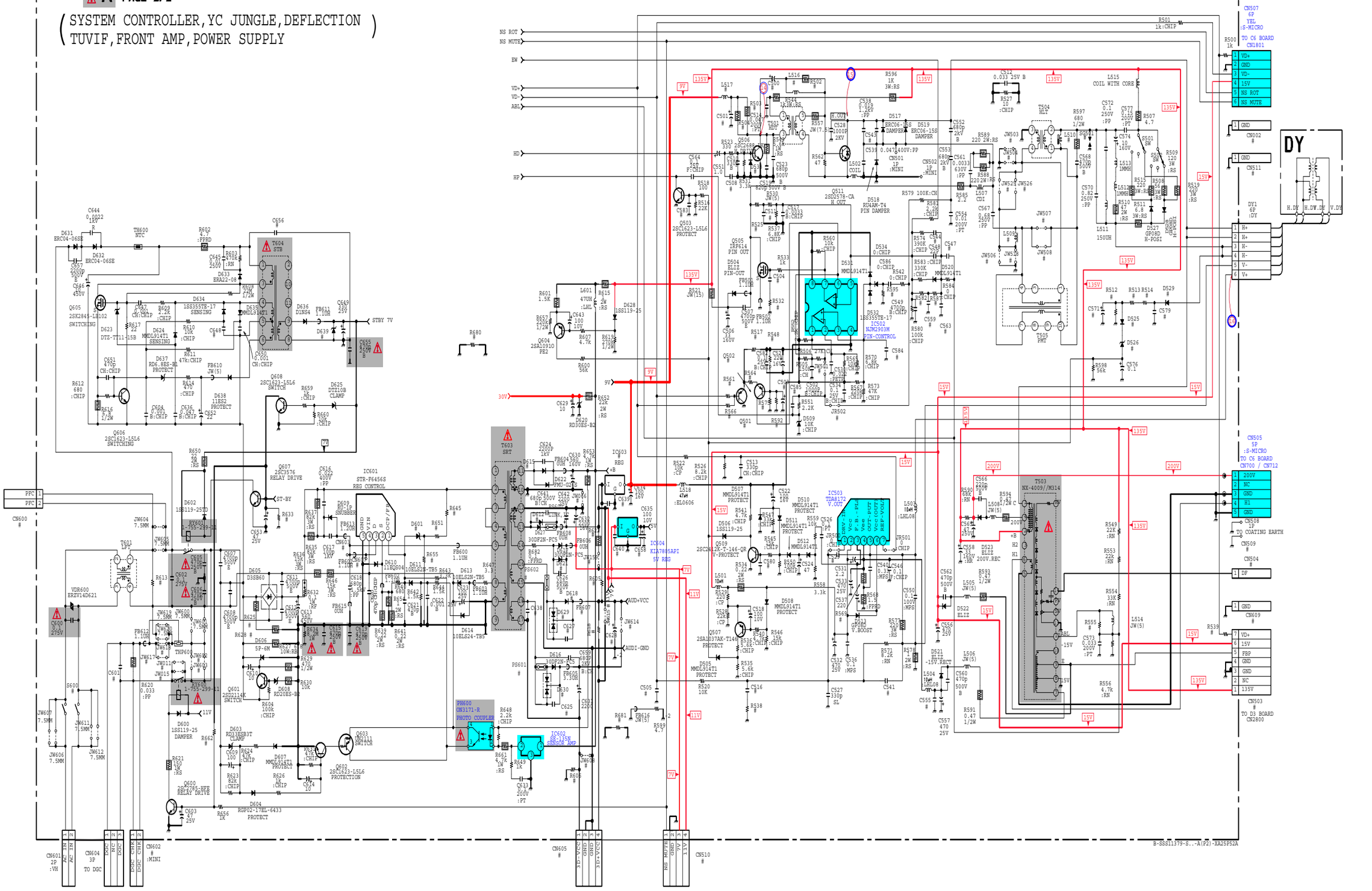
(1) A Board Schematic Diagram


A PAGE 1/2
(SYSTEM CONTROLLER,YC JUNGLE,DEFLECTION
TUVIF,FRONT AMP,POWER SUPPLY)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
A
B
C
D
E
F
G
H
I
J
IC101 CXA2133Q Y/C JUNGLE
IC102 TDA9183T COMB FILTER
IC201 TDA7223K
IC2001 CXP86461-642S SYSTEM CONTROLLER
IC901 M24C08-BN6(A) NVM
IC902 MM1319AFBE RESET SURGE
Q301 2SA1037AK-146 FALL DETECTOR
Q307 2SC1623-L5L6 BUFFER
Q308 2SA1037AK-T146 SCP BUFFER
Q309 2SA1037AK-T146 BUFFER
Q310 2SA1037AK-T146 BUFFER
Q311 2SA1037AK-T146 BUFFER
Q312 2SA1037AK-T146 BUFFER
Q313 2SC1623-L5L6 BUFFER
Q315 UN2213 SWITCH
Q316 2SA1162-B
Q317 2SC1623-L5L6 BUFFER
Q001 MUTE
Q002 2SC1623-L5L6 BUFFER
Q005 DTA114TKA-T146
Q006 2SC1623-L5L6 AMPLIFIER
Q201 UN2216 MUTE SW
Q202 UN2216 MUTE SW
Q203 UN2213 MUTE
Q204 UN2213 MUTE
Q205 UN2213 MUTE
Q206 UN2213 MUTE
Q207 UN2213 MUTE
Q401 2SC1623-L5L6 BUFFER
Q402 2SC1623-L5L6 BUFFER
Q403 2SC1623-L5L6 BUFFER
Q404 2SC1623-L5L6 BUFFER
D301 MMDL914T1 PROTECT
D303 MMDL914T1 PROTECT
D311 MMDL914T1 CLAMP
D312 MMDL914T1 CLAMP
D313 MMDL914T1 PROTECT
D314 MMDL914T1 PROTECT
D315 MMDL914T2 PROTECT
D316 RD7.5SB1-T1 PROTECT
D320 UDZSTE-1715B PROTECT
D321 MMDL914T1 PROTECT
D322 MMDL914T1 PROTECT
D323 MMDL914T1 PROTECT
D324 MMDL914T1 PROTECT
D325 1.5S
D326 MMDL914T1 PROTECT
D327 MMDL914T1 PROTECT
D328 MMDL914T1 PROTECT
D329 MMDL914T1 PROTECT
D330 MMDL914T1 PROTECT
D331 MMDL914T1 PROTECT
D332 MMDL914T1 PROTECT
D333 MMDL914T1 PROTECT
D334 MMDL914T1 PROTECT
D335 MMDL914T1 PROTECT
D336 MMDL914T1 PROTECT
D337 MMDL914T1 PROTECT
D338 MMDL914T1 PROTECT

KV-XA25P52A
RM-952

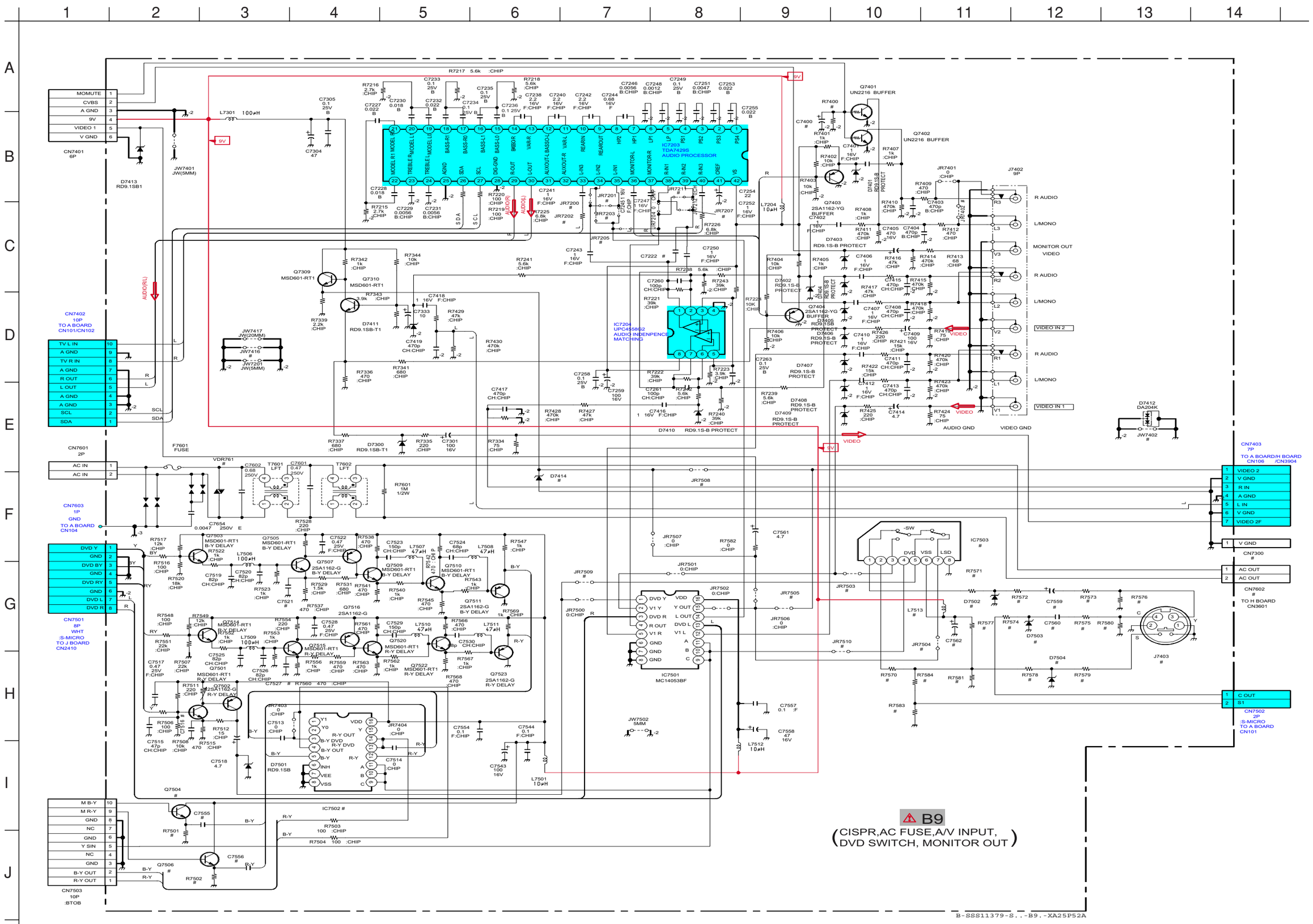
⚠A PAGE 2/2

(SYSTEM CONTROLLER,YC JUNGLE,DEFLECTION
TUVIF,FRONT AMP,POWER SUPPLY)



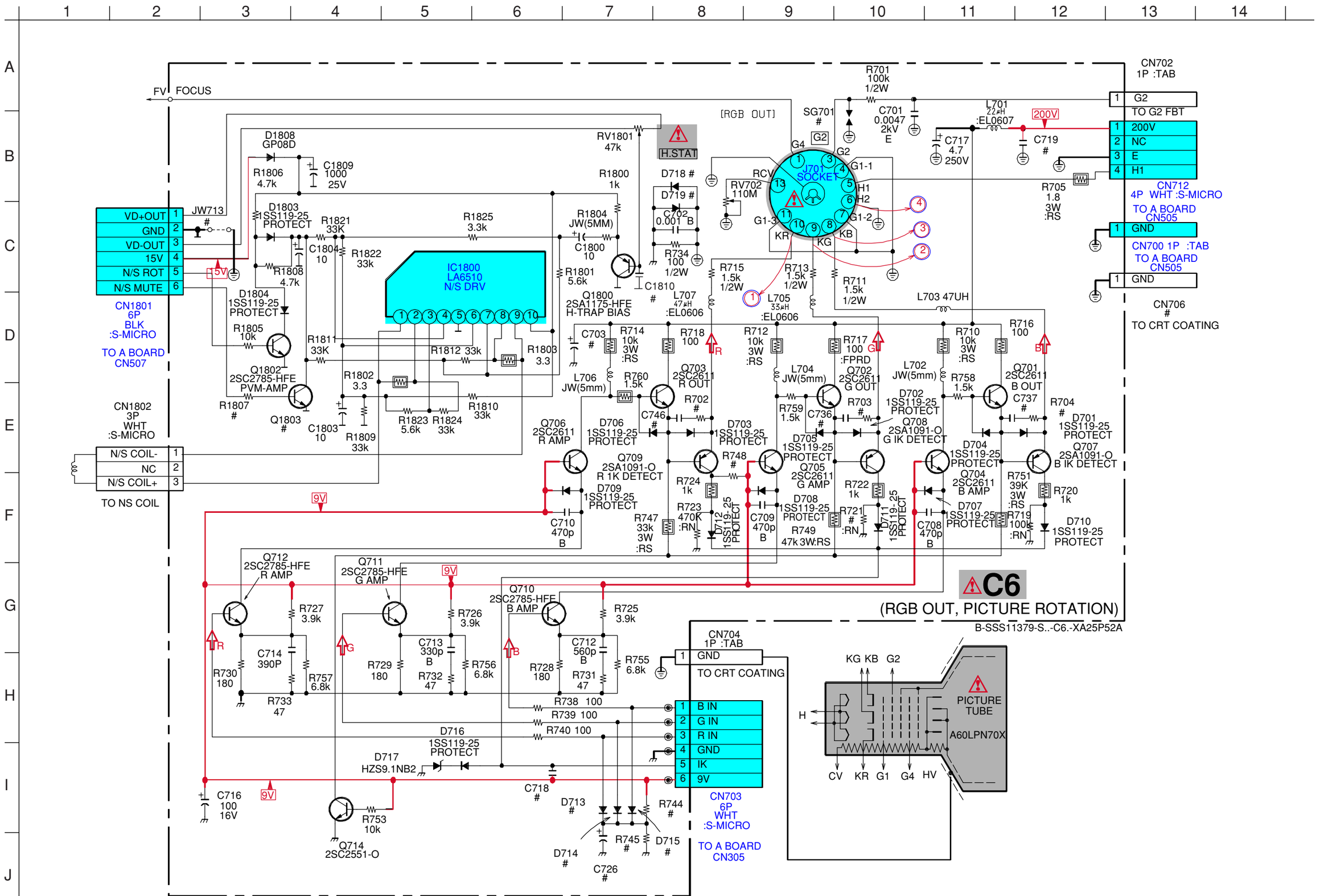
KV-XA25P52A RM-952

(2) B9 Board Schematic Diagram



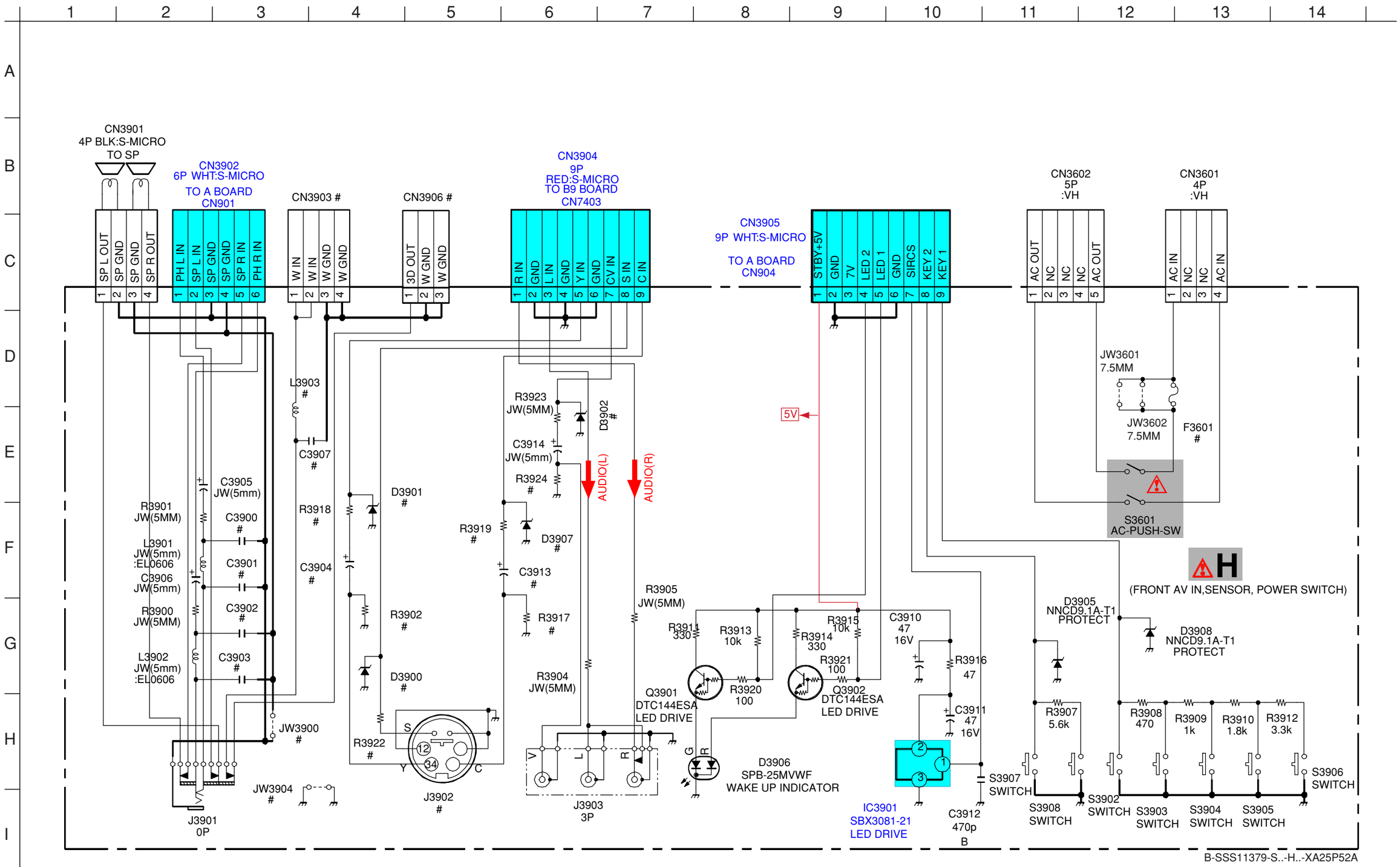
KV-XA25P52A
RM-952

(3) C6 Board Schematic Diagram

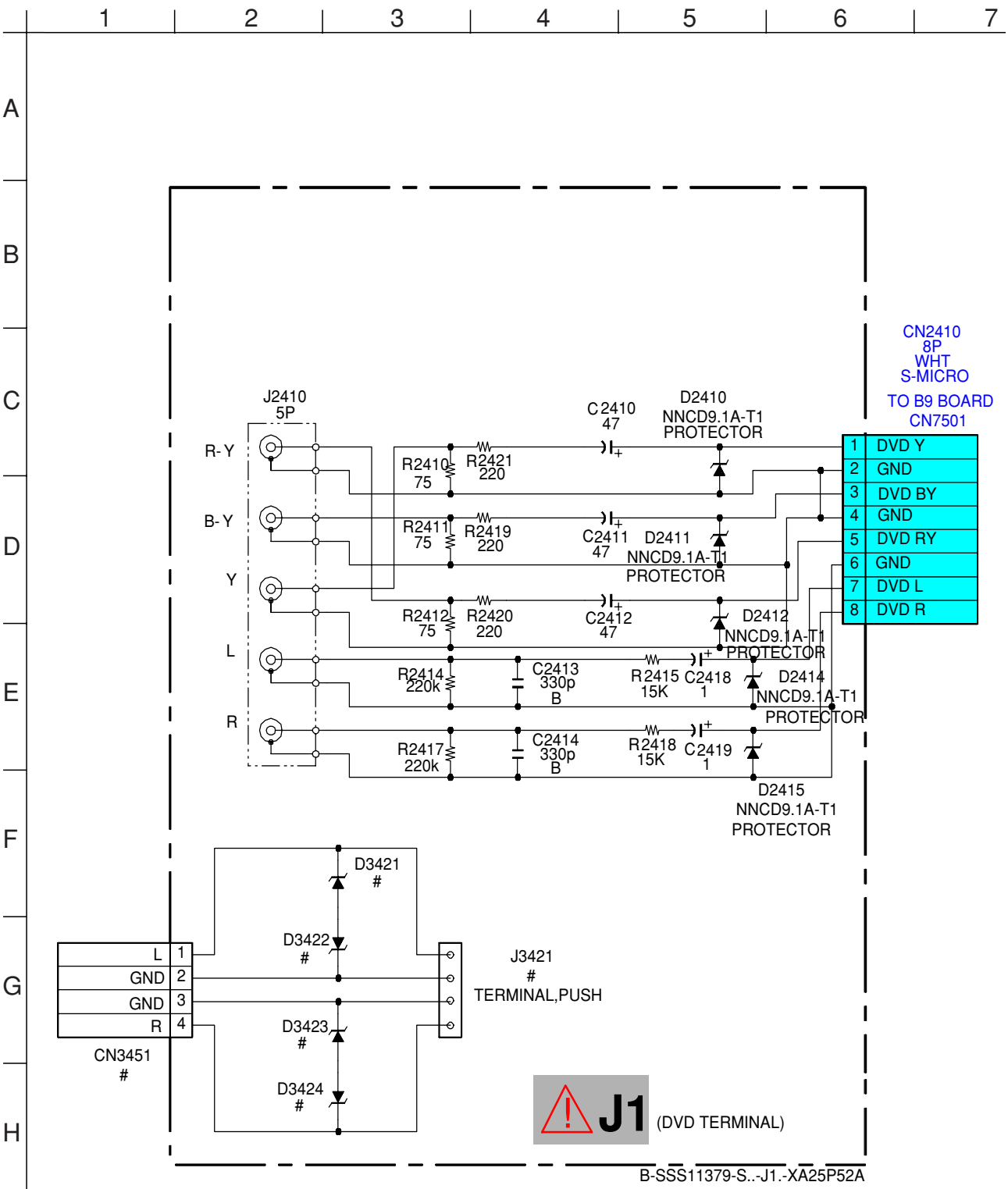


KV-XA25P52A
RM-952

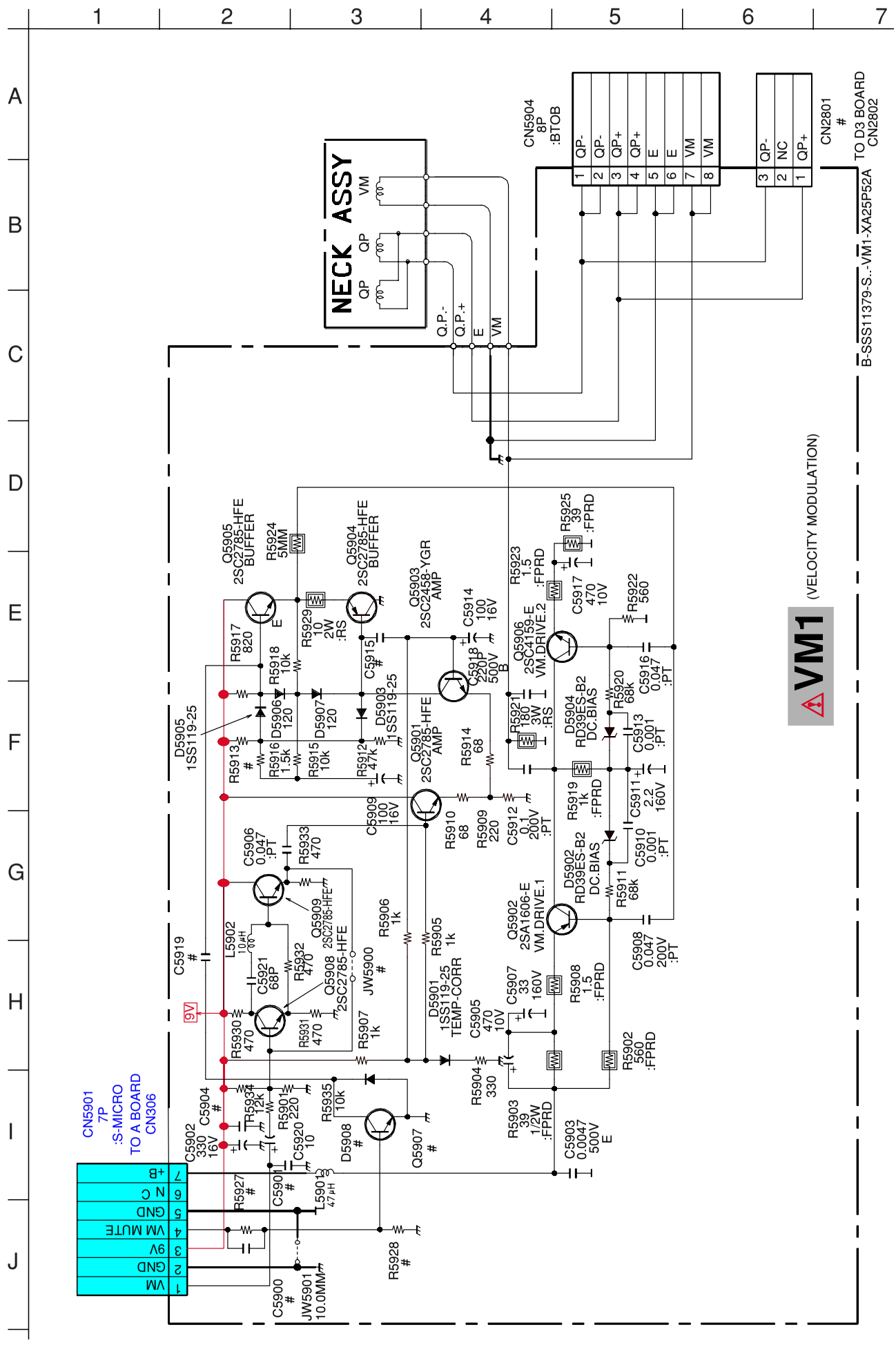
(4) H Board Schematic Diagram



(5) J1 Board Schematic Diagram



(6) VM1 Board Schematic Diagram



5-4. VOLTAGE MEASUREMENTS

A BOARD VOLTAGE LIST

Ref	Pin No	Voltage[v]
IC001	1	0
	2	4.9
	3	0.1
	4	0.1
	5	4.9
	6	4.9
	7	3.9
	8	4.8
	9	0.5
	10	4.8
	11	4.9
	12	0
	13	2.11
	14	2.1
	15	4.9
	16	4.9
	17	0
	18	4.8
	19	2.4
	20	0.2
	21	4.9
	22	0
	23	4.9
	24	0.1
	25	4.8
	26	4.9
	27	4.8
	28	4.9
	29	4.9
	30	0
	31	0
	32	0
	33	4.9
	34	0
	35	0
	36	2.5
	37	2.5
	38	4.8
	39	4.9
	40	0
	41	0.1
	42	0
	43	0
	44	4.9
	45	4.9
	46	4.6
	47	4.9
	48	4.6
	49	0
	50	2.1
	51	0.1
	52	4.7
IC002	1	0
	2	4.9
	3	4.8
	4	7.3
	5	4.9
	6	0
	7	0
IC003	1	0
	2	0
	3	0
	4	0
	5	4.9
	6	0
	7	4.9
	8	4.9
IC100	1	4.8
	2	4.8
	3	0
IC301	1	3.3
	2	5.1
	3	1.4
	4	5.1
	5	4.8
	6	4.4
	7	1.6
	8	3.8
	9	5.1
	10	3.8
	11	5.1
	12	0
	13	3.9
	14	2.3
	15	3.5
	16	3.5
	17	5.4
	18	7.6
	19	0
	20	3.6
	21	3.2
	22	3.8
	23	3.5
	24	1.7
	25	1.8
	26	1.6
	27	0
	28	4.5
	29	4.5
	30	4.5
	31	8.8
	32	4.1
	33	4.1
	34	3.6
	35	8.8
	36	4.6
	37	4.6
	38	4.6
	39	4.7
	40	5.1
	41	5.1
	42	0
	43	5.1
	44	4.9
	45	6.2
	46	5.1
	47	8.8
	48	2.1
	49	5.2
	50	0
	51	0
	52	1.7
IC302	1	1.6
	2	0
	3	1.6
	4	0
	5	1.4
	6	0
	7	4.7
	8	0.6
	9	0
	10	1.1
	11	4.9
	12	4.8
	13	0
	14	1.4
	15	0
	16	0.9
IC502	1	1.3
	2	3.5
	3	1.9
	4	0
	5	2.9
	6	2.6
	7	0
	8	8.9
IC503	1	1.6
	2	13.8
	3	-13.8
	4	-14.8
	5	0.5
	6	13.1
	7	1.6
IC602	1	119.5
	2	135.3
	3	0
IC603	I	12.6
	G	0
	O	8.9
IC604	I	7.8
	G	0
	O	4.9
Q001	B	4.9
	C	0
	E	0.9
Q002	B	0
	C	4.9
	E	09
Q005	B	4.8
	C	0
	E	4.8
Q101	B	2.8
	C	8.9
	E	2.1
Q301	B	12.6
	C	0
	E	12.5
Q302	B	1.6
	C	8.1
	E	0.9
Q303	B	8.1
	C	1.7
	E	8.7
Q304	B	3.6
	C	0
	E	4.3
Q305	B	8.1
	C	2.1
	E	8.7

A BOARD VOLTAGE LIST

Ref	Pin No	Voltage[v]	Ref	Pin No	Voltage[v]	Ref	Pin No	Voltage[v]
Q306	B	1.6	Q316	B	4.1	Q601	B	-0.6
	C	8.1		C	0		C	-0.4
	E	1.0		E	4.7		E	-0.6
Q307	B	4.3	Q317	B	4.1	Q602	B	0
	C	8.7		C	0		C	16.7
	E	3.7		E	4.8		E	0
Q308	B	3.6	Q503	B	0	Q603	B	16.7
	C	0.5		C	3.6		C	3.9
	E	0.8		E	0		E	16.7
Q309	B	4.7	Q505	D	21.8	Q604	B	134.1
	C	0		G	6.4		C	0
	E	0		S	0		E	134.2
Q310	B	2.1	Q506	B	-0.6	Q605	D	310.6
	C	4.8		C	86.9		G	32.1
	E	1.3		E	0		S	-0.6
Q311	B	0	Q507	B	12.6	Q606	B	-0.1
	C	8.9		C	0.1		C	0.2
	E	0		E	13.0		E	-0.6
Q312	B	4.8	Q509	B	0.6	Q607	B	0.7
	C	0		C	0.1		C	0
	E	6.2		E	0		E	0
Q313	B	0	Q511	B	-0.1	Q608	B	0
	C	12.5		C	123.9		C	0.7
	E	0		E	0		E	0
Q314	B	0.5	Q600	B	0	PH600	1	0.2
	C	0		C	12.6		2	4.9
	E	1.1		E	0		3	0
Q315	B	0					4	16.7
	C	2.9						
	E	0						

VM1 BOARD VOLTAGE LIST

Ref	Pin No	Voltage[v]	Ref	Pin No	Voltage[v]	Ref	Pin No	Voltage[v]
Q5901	B	2.7	Q5904	B	4.6	Q5907	B	0
	C	8.9		C	0		C	0.2
	E	2.0		E	5.1		E	0
Q5902	B	135.2	Q5905	B	5.6	Q5908	B	3.4
	C	81.2		C	8.9		C	0
	E	135.2		E	5.1		E	0
Q5903	B	2.7	Q5906	B	0.4	Q5909	B	0
	C	4.6		C	81.3		C	8.9
	E	2.0		E	0.1		E	3.4

C6 BOARD VOLTAGE LIST

Ref	Pin No	Voltage[v]	Ref	Pin No	Voltage[v]	Ref	Pin No	Voltage[v]
IC1800	1	6.4	Q703	B	150.9	Q710	B	1.6
	2	6.4		C	203.6		C	8.4
	3	6.4		E	151.8		E	1.2
	4	6.4	Q704	B	8.9	Q711	B	1.8
	5	0		C	155.1		C	8.4
	6	6.4		E	8.4		E	1.4
	7	6.4	Q705	B	8.9	Q712	B	1.7
	8	6.3		C	148.9		C	8.4
	9	6.3		E	8.4		E	1.3
	10	12.7	Q706	B	8.2	Q714	B	0.7
J701	KR	152.2		C	151		C	0.2
	KG	148.7		E	7.7		E	0
	KB	155.9	Q707	B	155.8	Q1800	B	3.8
	H2	0		C	4.4		C	0
	G2	312.7		E	153.4		E	4.5
Q701	B	154.4	Q708	B	148.6	Q1802	B	0.4
	C	204.2		C	5.6		C	3.4
	E	156.6		E	147		E	0
Q702	B	148.8	Q709	B	151.6	Q1803	B	0
	C	204.4		C	4.9		C	6.4
	E	149.3		E	149.2		E	0

B9 BOARD VOLTAGE LIST

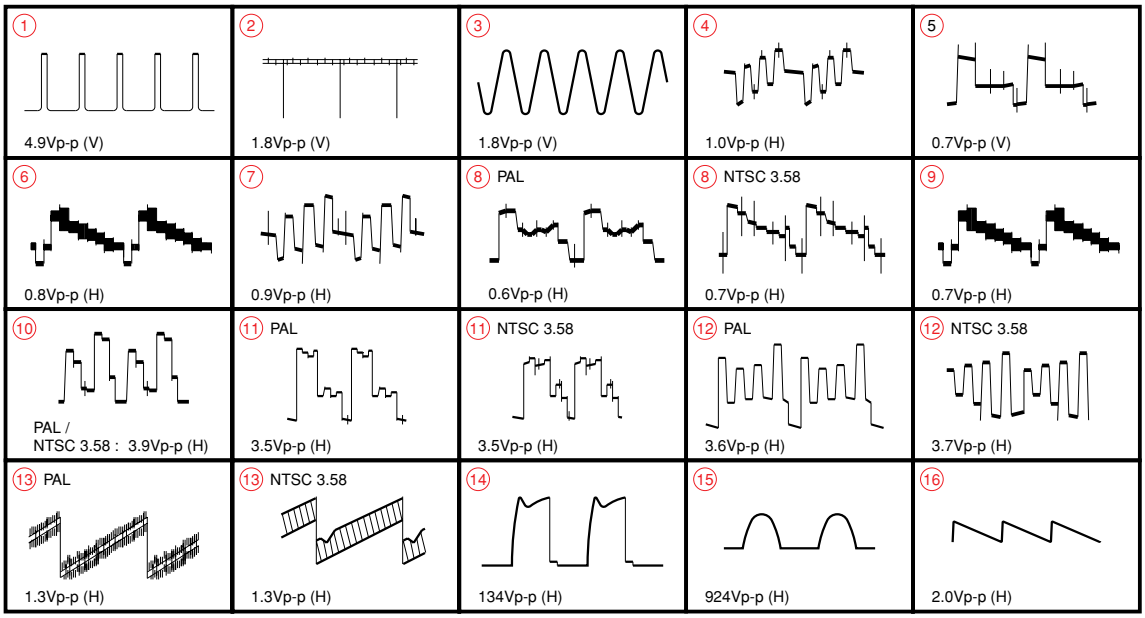
Ref	Pin No	Voltage[v]	Ref	Pin No	Voltage[v]	Ref	Pin No	Voltage[v]
IC7203	1	4.5		24	0		5	2.5
	2	4.5		25	*		6	2.5
	3	4.5		26	*		7	5.0
	4	4.5		27	*		8	*
	5	4.5		28	0	Q7309	B	5.7
	6	4.5		29	3.8		C	8.8
	7	4.5		30	3.8		E	5.0
	8	4.5		31	3.8	Q7310	B	5.7
	9	4.5		32	3.8		C	8.8
	10	4.5		33	4.5		E	1.8
	11	4.5		34	4.5	Q7401	B	0
	12	4.5		35	4.5		C	0
	13	4.5		36	4.5		E	0
	14	4.5		37	4.5	Q7402	B	*
	15	4.5		38	4.5		C	0
	16	4.5		39	4.5		E	0
	17	4.5		40	4.5	Q7403	B	5.2
	18	4.5		41	4.5		C	0
	19	4.5		42	8.9		E	4.6
	20	4.5	IC7204	1	5.0	Q7404	B	5.2
	21	4.5		2	2.5		C	0
	22	4.5		3	2.5		E	4.5
	23	4.5		4	0			

H BOARD VOLTAGE LIST

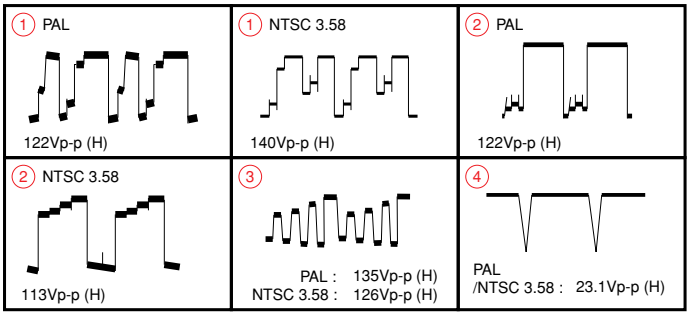
Ref	Pin No	Voltage[v]
IC3901	1	4.9
	2	4.9
	3	0
Q3901	B	0.1
	C	4.9
	E	0.1
Q3902	B	4.7
	C	2.2
	E	1.8

5-5. WAVEFORMS

A BOARD WAVEFORMS



C6 BOARD WAVEFORMS



KV-XA25P52A
RM-952

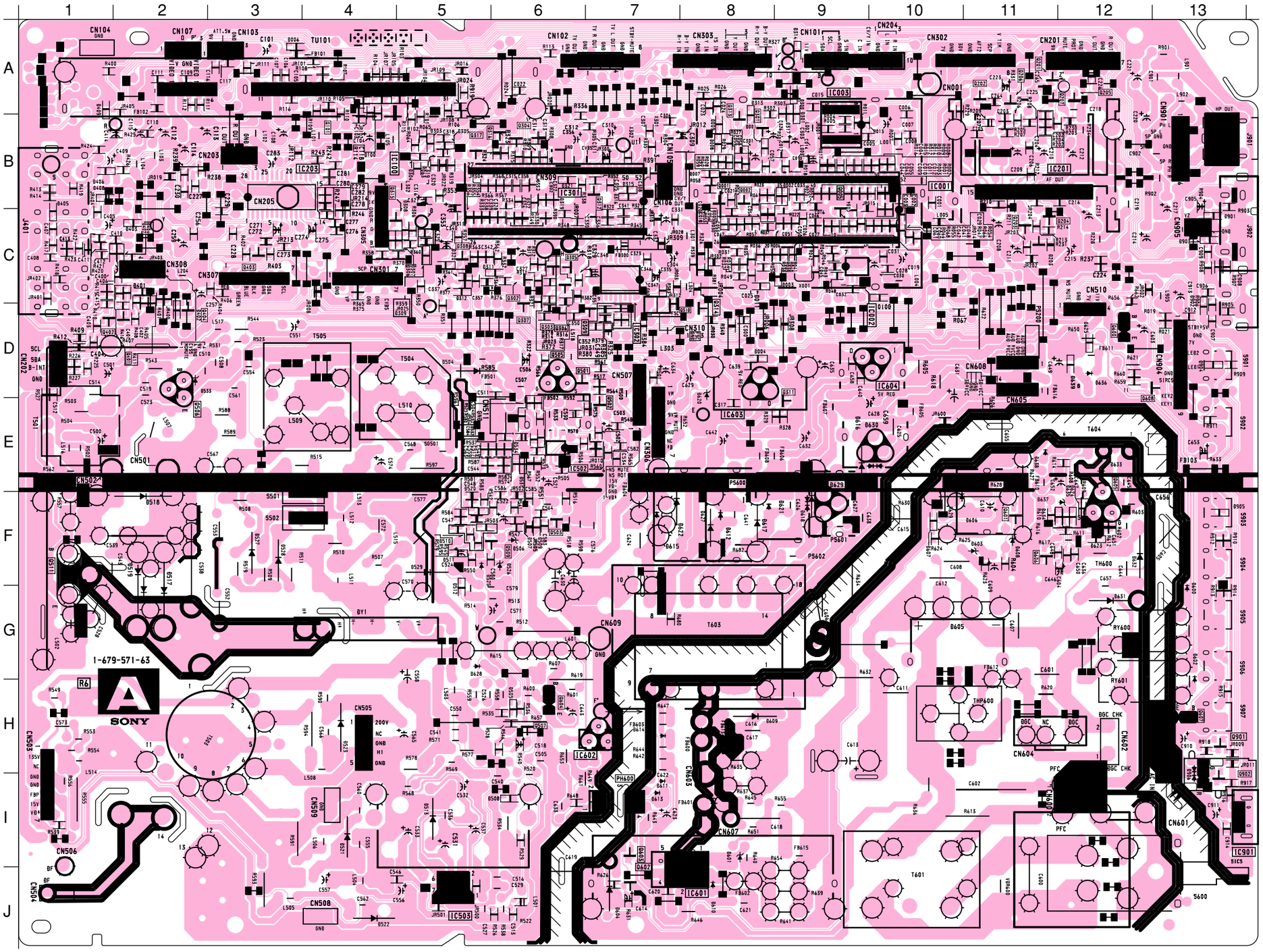
5-6. PRINTED WIRING BOARDS AND PARTS LOCATION

PRINTED WIRING BOARDS

A [SYSTEM CONTROLLER, Y/C JUNGLE, DEFLECTION, TUVIF, FRONT AMP, POWER SUPPLY]

NOTE:
The circuit indicated at left contains high voltage of over 1220 Vp-p. Please pay attention when inspecting or repairing it to prevent an electric shock.

– A Board –



A BOARD

IC		Q607	H-13	D525	F-5
IC001	B-10	Q608	E-12	D526	F-6
IC002	D-10	Q901	H-13	D527	F-3
IC003	A-9	Q902	H-13	D528	F-3
IC100	B-4			D529	F-5
IC201	B-12	DIODE		D531	E-6
IC203	B-4			D532	E-5
IC301	B-6	D001	B-8	D533	D-2
IC302	D-7	D002	B-9	D534	E-6
IC502	E-6	D003	C-9	D600	G-13
IC503	J-5	D004	D-8	D601	I-8
IC601	J-8	D005	B-8	D602	G-13
IC602	H-7	D006	A-3	D603	F-11
IC603	E-8	D007	B-8	D604	J-7
IC604	D-10	D008	B-8	D605	G-10
		D009	B-8	D606	E-11
TRANSISTOR		D010	D-10	D607	F-10
		D011	C-8	D608	F-11
Q001	B-8	D100	B-4	D609	H-8
Q002	B-8	D203	C-11	D610	J-8
Q005	B-9	D300	A-9	D611	J-7
Q101	B-4	D301	B-9	D612	F-8
Q201	A-11	D303	B-5	D613	I-7
Q202	A-11	D304	B-5	D615	E-7
Q203	C-11	D305	B-5	D616	E-9
Q204	C-12	D306	C-5	D617	F-8
Q205	A-12	D307	C-5	D618	F-9
Q206	A-11	D308	B-5	D620	E-8
Q207	A-12	D309	D-5	D621	F-9
Q301	B-8	D311	C-5	D622	F-7
Q302	C-6	D312	C-5	D623	F-12
Q303	D-6	D313	A-8	D624	E-12
Q304	B-6	D314	A-9	D625	D-12
Q305	C-6	D315	B-7	D627	F-8
Q306	D-6	D316	B-7	D628	G-5
Q307	D-6	D317	B-9	D629	E-9
Q308	C-5	D319	B-6	D630	E-10
Q310	D-8	D320	C-5	D631	G-12
Q311	D-9	D321	B-6	D632	F-12
Q312	B-7	D322	B-6	D633	E-12
Q313	A-8	D401	C-2	D634	F-11
Q314	D-8	D402	D-2	D635	E-12
Q315	B-4	D403	C-2	D636	D-12
Q316	B-5	D404	C-2	D637	F-11
Q317	B-5	D405	B-1	D638	E-11
Q401	D-2	D406	B-1	D639	D-12
Q402	D-1	D407	C-2	D901	C-13
Q403	C-3	D408	B-1	D902	C-13
Q404	D-2	D409	A-1	D903	C-13
Q501	D-6	D504	D-5	D904	D-13
Q502	E-7	D505	H-6	D905	F-13
Q503	F-6	D506	F-6	D906	H-13
Q505	D-6	D507	F-6	PH600	I-7
Q506	E-2	D508	I-6		
Q507	H-6	D510	F-5		
Q509	F-6	D511	F-5		
Q511	F-1	D512	F-5		
Q600	D-12	D513	I-5		
Q601	F-11	D517	F-2		
Q602	I-7	D518	F-2		
Q603	I-7	D519	F-2		
Q604	H-6	D520	E-5		
Q605	E-12	D521	I-4		
Q606	F-11	D522	J-4		
		D523	H-4		

KV-XA25P52A
RM-952

PRINTED WIRING BOARDS

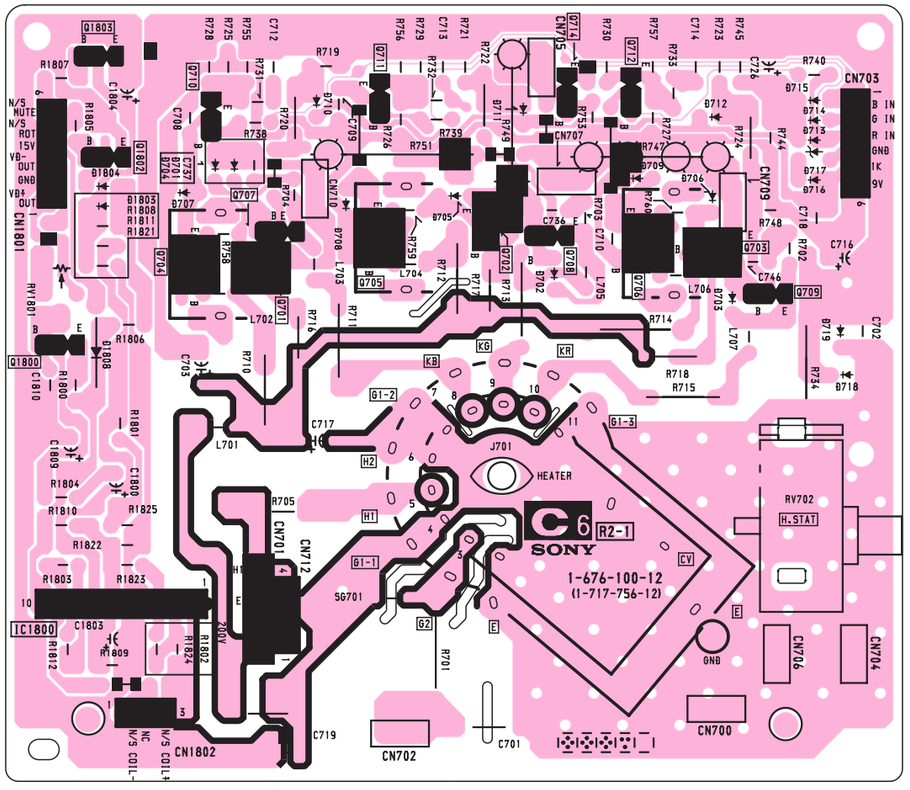
C6 [RGB OUT, PICTURE ROTATION]

H [FRONT AV IN, SENSOR, POWER SWITCH]

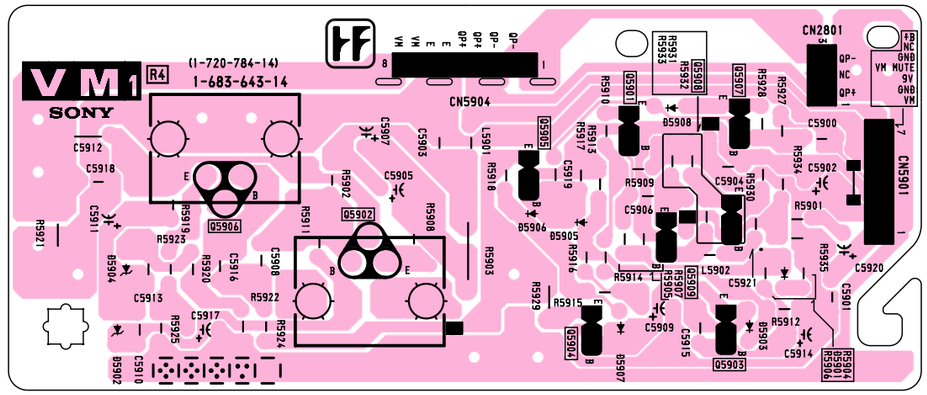
VM1 [VELOCITY MODULATION]

J1 [DVD TERMINAL]

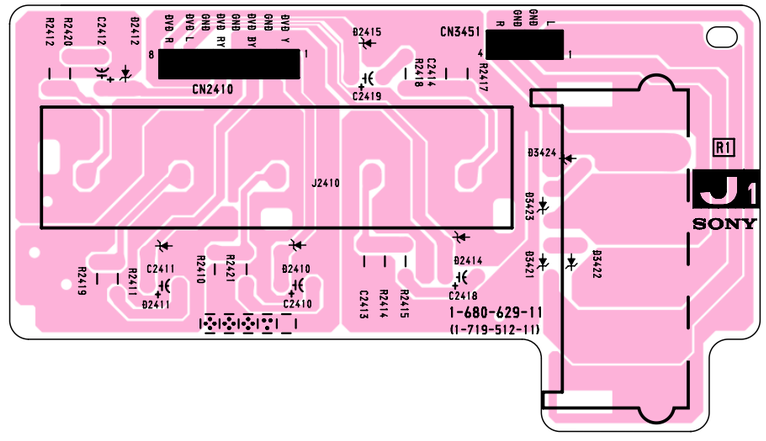
– C6 Board –



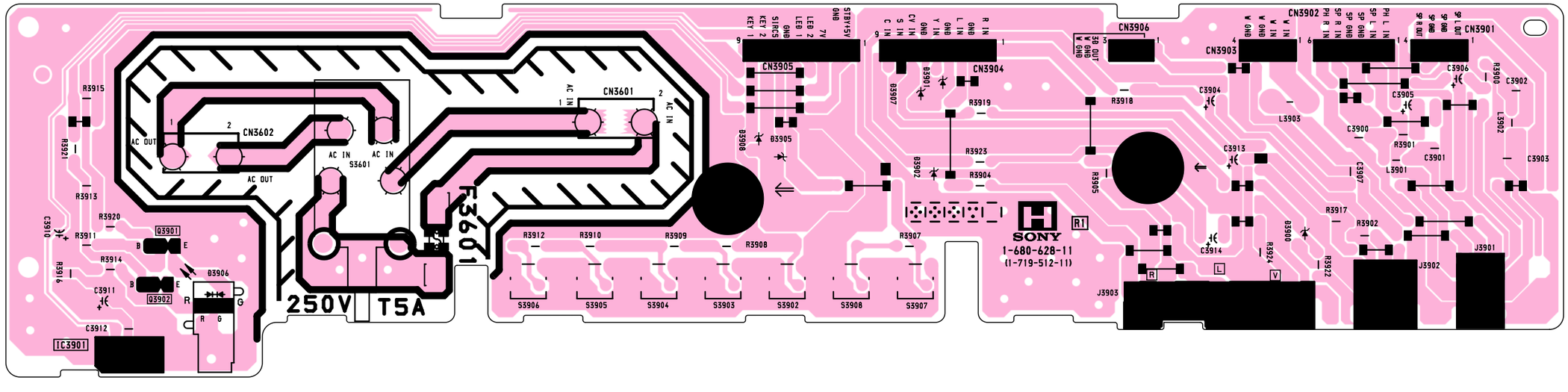
– VM1 Board –



– J1 Board –



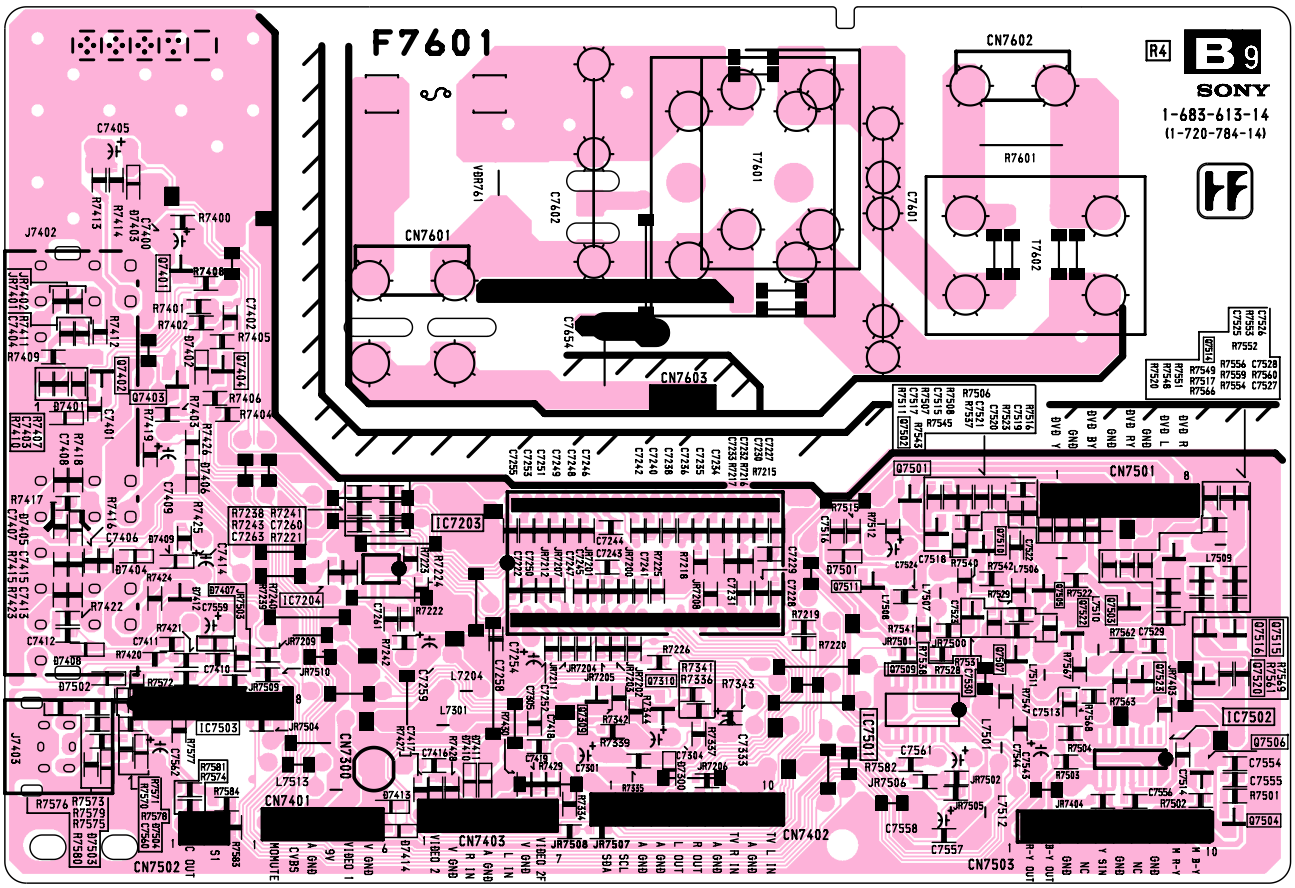
– H Board –



PRINTED WIRING BOARDS

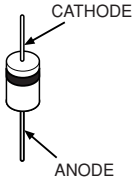
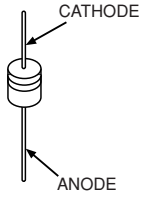
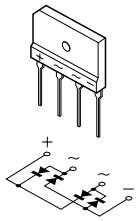
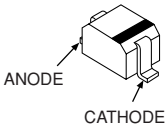
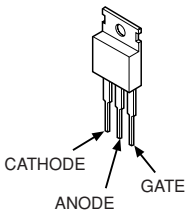
B9 [CISPR, AC FUSE, A/V INPUT, DVD SWITCH, MONITOR OUT]

– B9 Board –

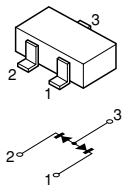
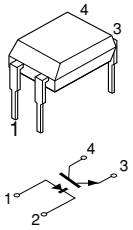
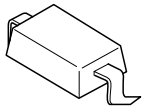
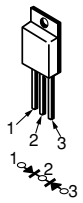
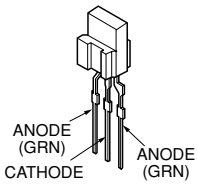
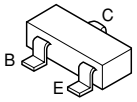


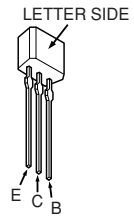
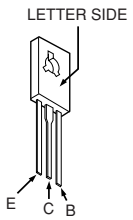
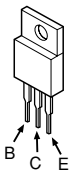
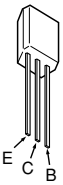
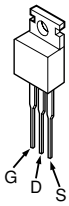
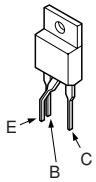
5-7. SEMICONDUCTORS

DIODE

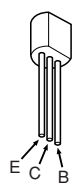
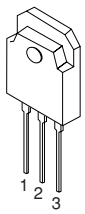
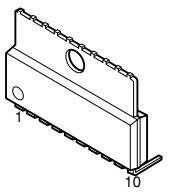
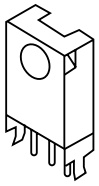
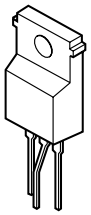
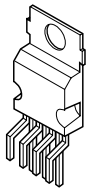
					
EL1Z ERA22-08 ERC04-06SE ERC06-15S GP08D NNCD9.1A-T1 RD33EB3T RGP02-17EL-6433	RU4AM-T4 10ELS2N-TB5 30DF2N-FC5	D1NS4 HZS9.1NB2 RD6.8ES-B1 RD20ES-B2 RD30ESB2 RD39ES-B 1SS119-25 11ES2	D3SB60	DTZ-TT11-15B DTZ10B RD7.5SB1-T1 RD9.1S-B UDZSTE-175.1B UDZSTE-179.1B 11EQS04	5P6M

LED TRANSISTOR

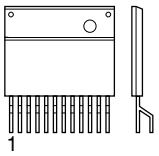
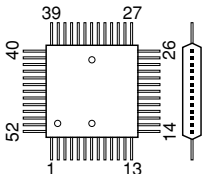
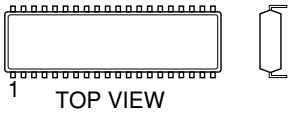
					
DA204K	ON3171-R	MMDL914T1	FMU-G26S	SPB-25MVWF	MSD601-RT1 UN2111 UN2213 UN2216 2SA1162-G 2SD2114K 2SA1037AK-T146 2SC1623-L5L6

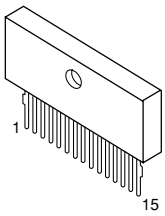
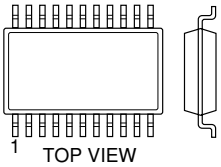
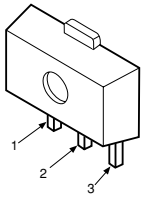
					
DTC144ESA 2SA1175-HFE 2SC2785-HFE DTA114TKA-T146 2SC2785-HFE	2SC2611 2SC2688-LK	2SA1606-E 2SC4159-E	2SC3576	IRF614	2SK2845-LB102

IC

					
2SA1091-0 2SC2551-0	2SD2578-CA KIA7805API	LA6510	SBX3081-21	SE-135N	TDA8172

IC

MARKING SIDE VIEW  Zig-zag In -line Package Pin 6~99	MARKING SIDE VIEW  39 27 40 26 52 14 1 13	 TOP VIEW Dual In-line Package Pin 6~98
STR-F6456S	RU-1P	CXA2159S CXP86461-642S (64PIN) M24C08-BN6 (8PIN) TDA7429S (15PIN)

 1 15	 TOP VIEW Small outline L-leaded Pin 8~98	 1 2 3
TA8223K	MC14053BF MM1319AFBE (7PIN) NJM2903M (8PIN) UPC4558G2 (8PIN)	S-80743AL-A7-S

SECTION 6
EXPLODED VIEWS

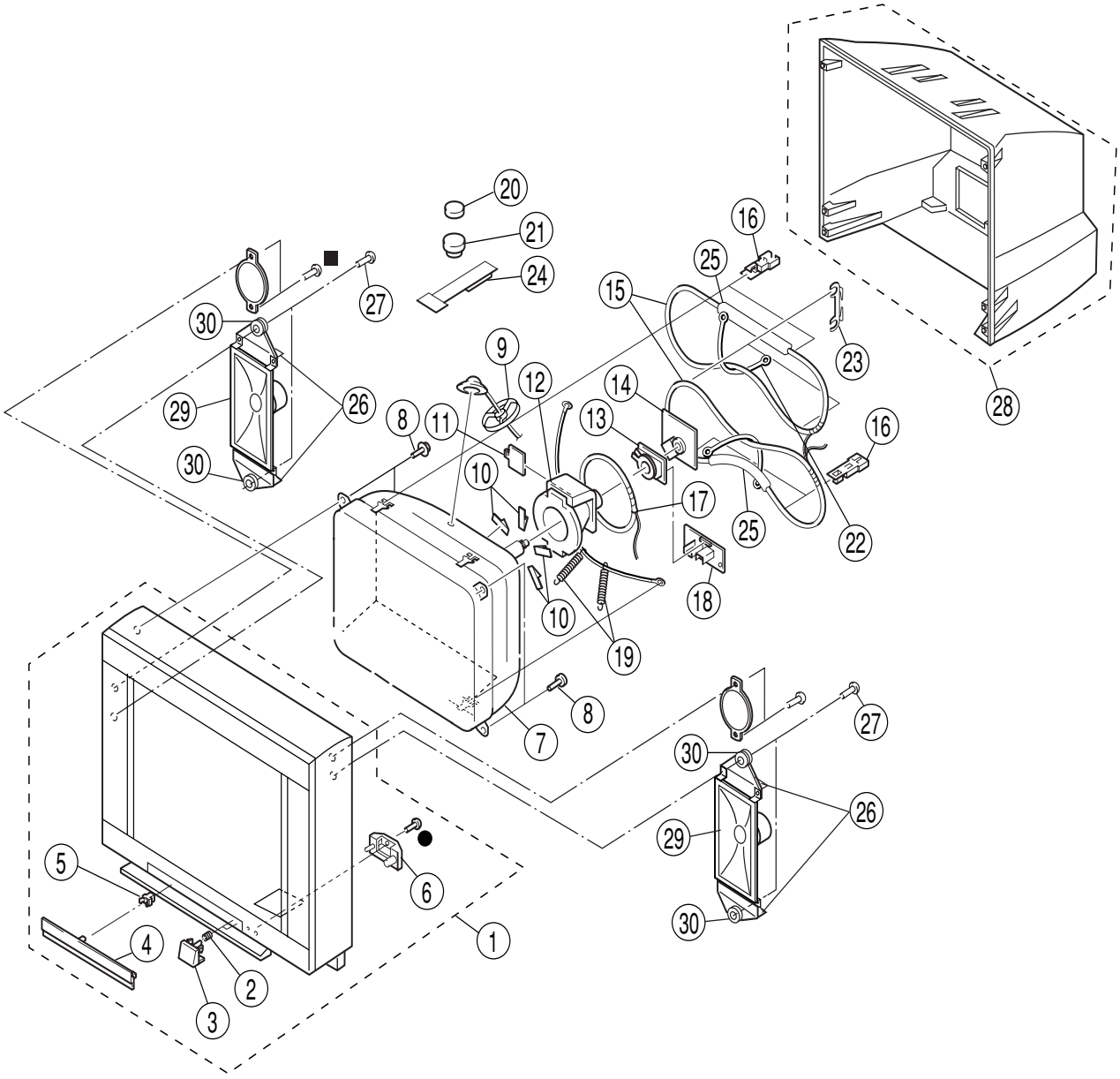
NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " ∗ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

6-1. PICTURE TUBE

●: 7-685-648-79 SCREW BVTP 3 × 12
■: 7-685-663-71 SCREW BVTP 4 × 16

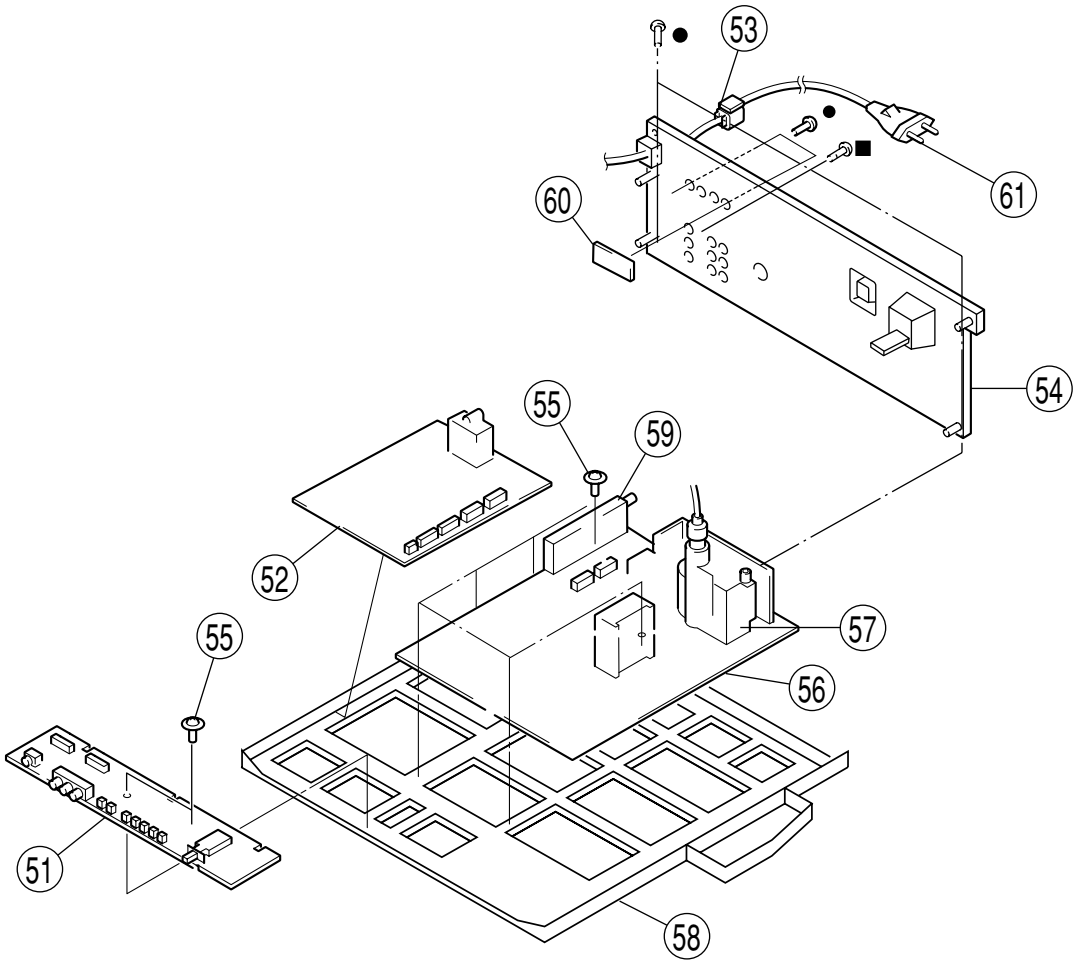


REF. NO.		PART NO.	DESCRIPTION	REMARK
1		X-4040-648-1	BEZNET ASSY	2, 3, 4, 5, 6
2		4-036-405-21	SPRING, COMPRESSION	
3		4-075-747-51	BUTTON, POWER	
4		4-086-702-51	DOOR, CONTROL	
5		4-047-464-01	CATCHER PUSH	
6	*	4-075-749-01	GUIDE LIGHT	
7	⚠	8-733-250-05	PICTURE TUBE (A60LPN70X)	
8		4-046-765-12	SCREW, TAPPING 7+CROWN WASHER	
9	*	3-704-372-11	HOLDER, HV CABLE	
10		4-064-818-01	SPACER, DY	
11		4-057-714-01	PIECE, TLH CONVENGENCE	
12	⚠	1-451-475-11	DEFLECTION YOKE (Y25RSA)	
13		8-453-011-21	NA299-S	
14	*	A-1332-164-A	C6 BOARD MOUNTED	
15	⚠	1-419-322-11	COIL, DEGAUSSING	

REF. NO.		PART NO.	DESCRIPTION	REMARK
16	*	4-065-572-01	CLIP (25RSN), DGC	
17		1-452-896-81	COIL, NA ROTATION	
18	*	A-1401-393-A	VM1 BOARD MOUNTED	
19		4-078-765-11	SPRING, EXTENSION	
20		1-452-032-00	MAGNET,DISC	
21		1-452-094-00	CIRCULAR DISC MAGNET B	
22		4-079-376-01	BAND, DGC	
23		4-064-883-03	HOLDER, DGC	
24		4-051-734-42	PIECE B (120) CONV CORRECT	
25		4-063-935-21	CUSHION (50 × 550) DGC	
26	*	4-046-981-03	BRACKET SPEAKER	
27		4-302-404-03	SCREW (WASHER HEAD) (+P4 × 16)	
28	⚠	X-4038-947-1	REAR COVER ASSY (■ 11 SCREWS)	
29		1-529-563-11	SPEAKER (15 × 6.5CM)	
30		4-374-745-21	CUSHION (A)	

6-2. CHASSIS

●: 7-685-648-79 SCREW BVTP 3 × 12
■: 7-685-663-71 SCREW BVTP 4 × 16



REF. NO.	PART NO.	DESCRIPTION	REMARK
51	* A-1401-395-A	H BOARD MOUNTED	
52	* A-1300-808-A	B9 BOARD COMPLETE	
53	⚠4-022-115-31	HOLDER, AC CORD	
54	* 4-081-023-31	BRACKET, TERMINAL	
55	4-046-797-21	SCREW (3 × 12), (+)BVTAP	

REF. NO.	PART NO.	DESCRIPTION	REMARK
56	* A-1300-691-A	A BOARD COMPLETE	
57	⚠ 1-453-284-11	TRANSFORMER ASSY, FLYBACK (NX-4009//M314)	
58	* 4-066-681-05	BRACKET, MAIN	
59	8-598-448-10	TUNER, FSS BTF-LG413	
60	* A-1401-394-A	J1 BOARD MOUNTED	
61	⚠ 1-575-023-41	CORD POWER (WITH CONNECTOR)	

SECTION 7
ELECTRICAL PARTS LIST

A

NOTE:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All resistors are in ohms
- F : nonflammable

CAPACITORS
- MF : μF, PF : μμF

COILS
- MMH : mH, UH : μH

REF NO.	PART NO.	DESCRIPTION			REMARK
	* A-1300-691-A	A BOARD COMPLETE			
		**********			
	* 4-040-983-22	TERMINAL BOARD (D)			
	* 4-042-408-01	PIN, COATING LEAD			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
	4-382-854-21	SCREW (M3X14), P, SW (+)			
		<CAPACITOR>			
C004	1-163-001-11	CERAMIC CHIP	220PF	10.00%	50V
C005	1-163-001-11	CERAMIC CHIP	220PF	10.00%	50V
C006	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C007	1-126-947-11	ELECT	47UF	20.00%	16V
C013	1-163-021-91	CERAMIC CHIP	0.01UF	10.00%	50V
C014	1-126-947-11	ELECT	47UF	20.00%	25V
C015	1-163-009-91	CERAMIC CHIP	0.001UF	10.00%	50V
C016	1-163-243-11	CERAMIC CHIP	47PF	5.00%	50V
C017	1-163-247-91	CERAMIC CHIP	68PF	5.00%	50V
C019	1-126-947-11	ELECT	47UF	20.00%	25V
C022	1-163-227-11	CERAMIC CHIP	10PF	0.50PF	50V
C023	1-163-227-11	CERAMIC CHIP	10PF	0.50PF	50V
C024	1-163-227-11	CERAMIC CHIP	10PF	0.50PF	50V
C026	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C027	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C028	1-163-037-11	CERAMIC CHIP	0.022UF	10.00%	50V
C030	1-126-965-91	ELECT	22UF	20.00%	50V
C031	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C032	1-107-823-11	CERAMIC CHIP	0.47UF	10.00%	16V
C034	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C041	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C042	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C043	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C044	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C047	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C048	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C050	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C051	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C053	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C055	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C103	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C104	1-104-665-11	ELECT	100UF	20.00%	10V
C107	1-163-005-91	CERAMIC CHIP	470PF	10.00%	50V
C108	1-126-947-11	ELECT	47UF	20.00%	16V
C109	1-163-005-91	CERAMIC CHIP	470PF	10.00%	50V
C110	1-163-005-91	CERAMIC CHIP	470PF	10.00%	50V
C111	1-163-005-91	CERAMIC CHIP	470PF	10.00%	50V
C112	1-126-947-11	ELECT	47UF	20.00%	16V
C113	1-126-947-11	ELECT	47UF	20.00%	25V
C114	1-126-967-11	ELECT	47UF	20.00%	50V
C118	1-110-501-11	CERAMIC CHIP	0.33UF	10.00%	16V
C202	1-104-760-11	CERAMIC CHIP	0.047UF	10.00%	50V
C203	1-104-760-11	CERAMIC CHIP	0.047UF	10.00%	50V

REF NO.	PART NO.	DESCRIPTION			REMARK
C204	1-137-375-11	MYLAR	0.068UF	5.00%	50V
C205	1-163-037-11	CERAMIC CHIP	0.022UF	10.00%	50V
C206	1-163-037-11	CERAMIC CHIP	0.022UF	10.00%	50V
C207	1-137-375-11	MYLAR	0.068UF	5.00%	50V
C208	1-126-965-91	ELECT	22UF	20.00%	50V
C209	1-126-965-91	ELECT	22UF	20.00%	50V
C210	1-126-933-11	ELECT	100UF	20.00%	16V
C211	1-126-941-11	ELECT	470UF	20.00%	25V
C212	1-126-933-11	ELECT	100UF	20.00%	16V
C213	1-126-933-11	ELECT	100UF	20.00%	16V
C214	1-126-942-61	ELECT	1000UF	20.00%	25V
C215	1-126-942-61	ELECT	1000UF	20.00%	25V
C216	1-163-021-91	CERAMIC CHIP	0.01UF	10.00%	50V
C217	1-126-964-11	ELECT	10UF	20.00%	50V
C218	1-136-167-00	FILM	0.15UF	5.00%	50V
C219	1-136-167-00	FILM	0.15UF	5.00%	50V
C220	1-126-942-61	ELECT	1000UF	20.00%	25V
C221	1-126-964-11	ELECT	10UF	20.00%	50V
C223	1-126-965-91	ELECT	22UF	20.00%	50V
C224	1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V
C225	1-109-982-11	CERAMIC CHIP	1UF	10.00%	10V
C226	1-109-982-11	CERAMIC CHIP	1UF	10.00%	10V
C264	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C265	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C301	1-126-941-11	ELECT	470UF	20.00%	25V
C302	1-163-005-91	CERAMIC CHIP	470PF	10.00%	50V
C303	1-126-964-11	ELECT	10UF	20.00%	50V
C304	1-126-967-11	ELECT	47UF	20.00%	50V
C305	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C306	1-163-233-91	CERAMIC CHIP	18PF	5.00%	50V
C307	1-163-233-91	CERAMIC CHIP	18PF	5.00%	50V
C308	1-163-259-91	CERAMIC CHIP	220PF	5.00%	50V
C309	1-137-378-11	MYLAR	0.22UF	5.00%	50V
C310	1-126-963-11	ELECT	4.7UF	20.00%	50V
C311	1-126-964-11	ELECT	10UF	20.00%	50V
C312	1-163-038-91	CERAMIC CHIP	0.1UF		25V
C313	1-163-038-91	CERAMIC CHIP	0.1UF		25V
C315	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C316	1-126-934-11	ELECT	220UF	20.00%	16V
C317	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C318	1-163-031-91	CERAMIC CHIP	0.01UF		50V
C319	1-163-031-91	CERAMIC CHIP	0.01UF		50V
C320	1-163-031-91	CERAMIC CHIP	0.01UF		50V
C322	1-163-005-91	CERAMIC CHIP	470PF	10.00%	50V
C324	1-163-017-00	CERAMIC CHIP	0.0047UF	10.00%	50V
C325	1-126-960-11	ELECT	1UF	20.00%	50V
C327	1-126-965-91	ELECT	22UF	20.00%	50V
C328	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C329	1-126-963-11	ELECT	4.7UF	20.00%	50V
C330	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C331	1-126-963-11	ELECT	4.7UF	20.00%	50V
C332	1-126-963-11	ELECT	4.7UF	20.00%	50V

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

A

REF NO.	PART NO.	DESCRIPTION		REMARK	
C335	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C336	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C337	1-126-961-11	ELECT	2.2UF	20.00%	50V
C341	1-115-340-11	CERAMIC CHIP	0.22UF	10.00%	25V
C342	1-163-259-91	CERAMIC CHIP	220PF	5.00%	50V
C347	1-126-933-11	ELECT	100UF	20.00%	16V
C348	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C349	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C350	1-216-295-91	SHORT CHIP	0		
C351	1-126-964-11	ELECT	10UF	20.00%	50V
C352	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C353	1-126-960-11	ELECT	1UF	20.00%	50V
C356	1-126-962-11	ELECT	3.3UF	20.00%	50V
C357	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C502	1-163-009-91	CERAMIC CHIP	0.001UF	10.00%	50V
C506	1-107-638-11	ELECT	33UF	20.00%	160V
C507	1-161-830-00	CERAMIC	0.0047UF		500V
C510	1-102-112-00	CERAMIC	330PF	10.00%	50V
C512	1-163-989-11	CERAMIC CHIP	0.033UF	10.00%	25V
C513	1-163-263-11	CERAMIC CHIP	330PF	5.00%	50V
C514	1-106-383-00	MYLAR	0.047UF	10.00%	200V
C517	1-164-182-11	CERAMIC CHIP	0.0033UF	10.00%	50V
C518	1-104-665-11	ELECT	100UF	20.00%	10V
C519	1-102-212-00	CERAMIC	820PF	10.00%	500V
C521	1-126-934-11	ELECT	220UF	20.00%	16V
C522	1-126-933-11	ELECT	100UF	20.00%	16V
C523	1-102-002-00	CERAMIC	680PF	10.00%	500V
C524	1-126-967-11	ELECT	47UF	20.00%	50V
C526	1-130-495-00	MYLAR	0.1UF	5.00%	50V
C527	1-102-820-00	CERAMIC	330PF	5.00%	50V
C528	1-161-754-00	CERAMIC	0.001UF	10.00%	2KV
C530	1-137-372-11	MYLAR	0.022UF	5.00%	50V
C531	1-107-903-11	ELECT	2.2UF	20.00%	50V
C532	1-126-941-11	ELECT	470UF	20.00%	25V
C533	1-126-941-11	ELECT	470UF	20.00%	25V
C534	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C536	1-136-165-00	FILM	0.1UF	5.00%	50V
C537	1-126-969-11	ELECT	220UF	20.00%	50V
C538	1-127-717-11	FILM	19000PF	3%	1.2KV
C539	1-130-959-61	FILM	0.047UF	5.00%	400V
C540	1-136-171-00	FILM	0.33UF	5.00%	50V
C544	8-719-081-97	MMDL914T1			
C544	8-719-404-50	MA111-TX			
C544	8-719-988-61	1SS355TE-17			
C546	1-165-319-11	CERAMIC CHIP	0.1UF		50V
C548	1-163-235-11	CERAMIC CHIP	22PF	5.00%	50V
C549	1-163-017-00	CERAMIC CHIP	0.0047UF	10.00%	50V
C550	1-106-220-00	MYLAR	0.1UF	10.00%	100V
C551	1-126-960-11	ELECT	1UF	20.00%	50V
C552	1-162-116-00	CERAMIC	680PF	10.00%	2KV
C553	1-162-116-00	CERAMIC	680PF	10.00%	2KV
C554	1-107-364-11	MYLAR	0.01UF	10.00%	200V
C556	1-126-941-11	ELECT	470UF	20.00%	25V
C557	1-126-941-11	ELECT	470UF	20.00%	25V
C558	1-123-024-21	ELECT	33UF		160V
C560	1-102-228-00	CERAMIC	470PF	10.00%	500V
C561	1-129-708-91	FILM	0.0033UF	5.00%	630V
C562	1-102-228-00	CERAMIC	470PF	10.00%	500V
C564	1-163-038-91	CERAMIC CHIP	0.1UF		25V
C565	1-107-655-11	ELECT	47UF	20.00%	250V
C566	1-102-244-00	CERAMIC	220PF	10.00%	500V
C567	1-115-520-11	FILM	0.68UF	5.00%	250V

REF NO.	PART NO.	DESCRIPTION		REMARK	
C568	1-102-228-00	CERAMIC	470PF	10.00%	500V
C570	1-115-521-11	FILM	0.82UF	5.00%	250V
C572	1-107-846-11	FILM	0.1UF	5.00%	250V
C573	1-106-379-12	MYLAR	0.033UF	10.00%	200V
C574	1-107-636-11	ELECT	10UF	20.00%	160V
C576	1-130-495-00	MYLAR	0.1UF	5.00%	50V
C577	1-106-395-00	MYLAR	0.15UF	10.00%	200V
C582	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C586	1-216-295-91	SHORT CHIP	0		
C600 ⚠	1-115-165-11	MYLAR	0.1UF	20.00%	250V
C602 ⚠	1-115-165-11	MYLAR	0.1UF	20.00%	250V
C603	1-126-947-11	ELECT	47UF	20.00%	25V
C604	1-163-009-91	CERAMIC CHIP	0.001UF	10.00%	50V
C605 ⚠	1-119-886-51	CERAMIC	470PF	10.00%	250V
C606 ⚠	1-119-886-51	CERAMIC	470PF	10.00%	250V
C607	1-161-830-00	CERAMIC	0.0047UF	99%	500V
C608	1-161-830-00	CERAMIC	0.0047UF	99%	500V
C609	1-126-968-11	ELECT	100UF	20.00%	50V
C610	1-126-964-11	ELECT	10UF	20.00%	50V
C611	1-161-830-00	CERAMIC	0.0047UF	99%	500V
C612	1-161-830-00	CERAMIC	0.0047UF	99%	500V
C613	1-125-906-11	ELECT	560UF	20.00%	450V
C614	1-126-964-11	ELECT	10UF	20.00%	50V
C615 ⚠	1-119-886-51	CERAMIC	470PF	10.00%	250V
C616	1-130-202-00	FILM	0.022UF	5.00%	400V
C617	1-107-792-11	CERAMIC	100PF	5.00%	1KV
C618	1-125-893-11	FILM	680PF	3.00%	1.5KV
C619 ⚠	1-119-886-51	CERAMIC	470PF	10.00%	250V
C620	1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V
C621	1-102-114-00	CERAMIC	470PF	10.00%	50V
C622	1-102-074-00	CERAMIC	0.001UF	10.00%	50V
C623	1-104-665-11	ELECT	100UF	20.00%	25V
C624	1-104-331-11	CERAMIC	0.0022UF	10.00%	1KV
C626	1-102-002-00	CERAMIC	680PF	10.00%	500V
C629	1-126-964-11	ELECT	10UF	20.00%	50V
C630	1-125-494-11	ELECT(BLOCK)	560UF	20.00%	160V
C631	1-128-550-11	ELECT	2200UF	20.00%	50V
C632	1-128-339-11	ELECT	2200UF	20.00%	16V
C633	1-104-999-11	MYLAR	0.1UF	10.00%	200V
C634	1-126-933-11	ELECT	100UF	20.00%	16V
C635	1-104-665-11	ELECT	100UF	20.00%	10V
C636	1-104-760-11	CERAMIC CHIP	0.047UF	10.00%	50V
C641	1-102-002-00	CERAMIC	680PF	10.00%	500V
C642	1-126-943-11	ELECT	2200UF	20.00%	25V
C643	1-104-665-11	ELECT	100UF	20.00%	10V
C644	1-104-331-11	CERAMIC	0.0022UF	10.00%	1KV
C645	1-137-605-11	MYLAR	0.01UF	10.00%	250V
C646	1-107-679-41	ELECT	10UF	20.00%	450V
C647	1-163-275-11	CERAMIC CHIP	0.001UF	5.00%	50V
C649	1-126-940-11	ELECT	330UF	20.00%	25V
C650	1-163-275-11	CERAMIC CHIP	0.001UF	5.00%	50V
C651	1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V
C652	1-126-965-91	ELECT	22UF	20.00%	50V
C653	1-126-947-11	ELECT	47UF	20.00%	25V
C655 ⚠	1-119-886-51	CERAMIC	470PF	10.00%	250V
C657	1-101-821-00	CERAMIC	0.0022UF		500V
C659	1-162-116-00	CERAMIC	680PF	10.00%	2KV
C901	1-136-153-00	FILM	0.01UF	5.00%	50V
C902	1-136-153-00	FILM	0.01UF	5.00%	50V
C912	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C913	1-104-665-11	ELECT	100UF	20.00%	10V

A

REF NO.		PART NO.	DESCRIPTION			REMARK
			<CONNECTOR>			
CN101	*	1-764-333-11	PLUG, CONNECTOR 10P			
CN102	*	1-564-507-11	PLUG, CONNECTOR 4P			
CN104		1-695-915-11	TAB (CONTACT)			
CN106	*	1-564-506-11	PLUG, CONNECTOR 3P			
CN202	*	1-508-847-00	PIN, CONNECTOR 4P			
CN305	*	1-564-509-11	PLUG, CONNECTOR 6P			
CN501	*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P			
CN502	*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P			
CN505	*	1-564-508-11	PLUG, CONNECTOR 5P			
CN507	*	1-564-509-11	PLUG, CONNECTOR 6P			
CN508		1-695-915-11	TAB (CONTACT)			
CN601	*	1-580-843-11	PIN, CONNECTOR (POWER)			
CN604	*	1-573-963-11	PIN, CONNECTOR (PC BOARD) 3P			
CN901	*	1-564-509-11	PLUG, CONNECTOR 6P			
CN904	*	1-564-512-11	PLUG, CONNECTOR 9P			
			<DIODE>			
D001		8-719-081-97	MMDL914T1			
D005		8-719-081-97	MMDL914T1			
D100		8-719-081-97	MMDL914T1			
D203		8-719-914-42	DA204K			
D300		1-216-295-91	SHORT CHIP	0		
D301		8-719-081-97	MMDL914T1			
D306		8-719-081-97	MMDL914T1			
D307		8-719-081-97	MMDL914T1			
D308		8-719-081-97	MMDL914T1			
D309		8-719-069-54	UDZSTE-175.1B			
D311		8-719-081-97	MMDL914T1			
D312		8-719-081-97	MMDL914T1			
D313		8-719-081-97	MMDL914T1			
D314		8-719-081-97	MMDL914T1			
D315		8-719-081-97	MMDL914T1			
D316		8-719-037-06	RD7.5SB1-T1			
D320		8-719-069-60	UDZSTE-179.1B			
D321		8-719-069-60	UDZSTE-179.1B			
D504		8-719-302-43	EL1Z			
D506		8-719-911-19	1SS119-25			
D507		8-719-081-97	MMDL914T1			
D508		8-719-081-97	MMDL914T1			
D509		1-216-073-91	RES-CHIP	10K	5%	1/10W
D510		8-719-081-97	MMDL914T1			
D511		8-719-081-97	MMDL914T1			
D512		8-719-081-97	MMDL914T1			
D513		8-719-908-03	GP08D			
D517		8-719-945-80	ERC06-15S			
D518		8-719-074-35	RU4AM-T4			
D519		8-719-945-80	ERC06-15S			
D520		8-719-081-97	MMDL914T1			
D521		8-719-302-43	EL1Z			
D522		8-719-302-43	EL1Z			
D523		8-719-302-43	EL1Z			
D527		8-719-908-03	GP08D			
D528		8-719-908-03	GP08D			
D531		8-719-081-97	MMDL914T1			
D532		8-719-081-97	MMDL914T1			
D534		1-216-295-91	SHORT CHIP	0		
D600		8-719-911-19	1SS119-25			
D602		8-719-911-19	1SS119-25			
D603		8-719-150-92	RD33EB3T			

REF NO.		PART NO.	DESCRIPTION			REMARK
D604		8-719-028-72	RGP02-17EL-6433			
D605		8-719-510-22	D3SB60			
D606		8-719-108-18	5P-6M			
D607		8-719-081-97	MMDL914T1			
D608		8-719-110-53	RD20ES-B2			
D609		8-719-311-31	RU-1P			
D610		8-719-210-21	11EQS04			
D611		8-719-075-73	10ELS2N-TB5			
D613		8-719-075-73	10ELS2N-TB5			
D614		8-719-075-73	10ELS2N-TB5			
D616		8-719-083-56	DIODE 30DF2N-FC5			
D617		8-719-083-56	DIODE 30DF2N-FC5			
D620		8-719-110-72	RD30ESB2			
D622		8-719-177-49	DIODE FMU-G26S			
D623		8-719-978-65	DTZ-TT11-15B			
D624		8-719-081-97	MMDL914T1			
D625		8-719-977-28	DTZ10B			
D627		8-719-083-56	DIODE 30DF2N-FC5			
D628		8-719-911-19	1SS119-25			
D631		8-719-068-00	ERC04-06SE			
D632		8-719-068-00	ERC04-06SE			
D633		8-719-948-45	ERA22-08			
D634		8-719-081-97	MMDL914T1			
D635		8-719-081-97	MMDL914T1			
D636		8-719-510-02	D1NS4			
D637		8-719-109-96	RD6.8ES-B1			
D638		8-719-200-82	11ES2			
			<CONNECTOR>			
DY1	*	1-580-798-11	CONNECTOR PIN (DY) 6P			
			<FERRITE BEAD>			
FB300		1-412-911-31	FERRITE	0UH		
FB501		1-410-397-21	FERRITE	1.1UH		
FB502		1-410-397-21	FERRITE	1.1UH		
FB600		1-410-397-21	FERRITE	1.1UH		
FB601		1-410-397-21	FERRITE	1.1UH		
FB602		1-410-397-21	FERRITE	1.1UH		
FB603		1-410-397-21	FERRITE	1.1UH		
FB604		1-412-911-31	FERRITE	0UH		
FB605		1-410-397-21	FERRITE	1.1UH		
FB606		1-412-911-31	FERRITE	0UH		
FB608		1-412-911-31	FERRITE	0UH		
FB611		1-410-397-21	FERRITE	1.1UH		
FB612		1-410-397-21	FERRITE	1.1UH		
FB613		1-410-397-21	FERRITE	1.1UH		
FB615		1-412-911-31	FERRITE	0UH		
			<IC>			
IC001		8-752-931-44	IC CXP86461-642S			
IC002		8-759-371-21	MM1319AFBE			
IC003		8-759-672-78	M24C08-BN6(A)			
IC100		8-759-042-02	S-80743AL-A7-S			
IC201		8-759-336-30	TA8223K			
IC301		8-752-095-72	CXA2159S			
IC302		8-759-672-27	TDA9183T			
IC502		8-759-700-07	NJM2903M			
IC503		8-759-980-58	TDA8172			
IC601		8-749-019-09	IC STR-F6456S			

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

A

REF NO.	PART NO.	DESCRIPTION	REMARK
IC602	8-749-920-61	SE-135N	
IC603	8-759-701-59	NJM78M09FA	
IC604	8-759-646-52	KIA7805API	
		<CHIP CONDUCTOR>	
JR001	1-216-295-91	SHORT CHIP 0	
JR002	1-216-295-91	SHORT CHIP 0	
JR003	1-216-295-91	SHORT CHIP 0	
JR004	1-216-295-91	SHORT CHIP 0	
JR006	1-216-295-91	SHORT CHIP 0	
JR007	1-216-295-91	SHORT CHIP 0	
JR008	1-216-295-91	SHORT CHIP 0	
JR010	1-216-295-91	SHORT CHIP 0	
JR012	1-216-295-91	SHORT CHIP 0	
JR014	1-216-295-91	SHORT CHIP 0	
JR015	1-216-295-91	SHORT CHIP 0	
JR016	1-216-295-91	SHORT CHIP 0	
JR020	1-216-295-91	SHORT CHIP 0	
JR022	1-216-295-91	SHORT CHIP 0	
JR023	1-216-295-91	SHORT CHIP 0	
JR024	1-216-295-91	SHORT CHIP 0	
JR025	1-216-295-91	SHORT CHIP 0	
JR028	1-216-295-91	SHORT CHIP 0	
JR101	1-216-295-91	SHORT CHIP 0	
JR102	1-216-295-91	SHORT CHIP 0	
JR105	1-216-295-91	SHORT CHIP 0	
JR109	1-216-295-91	SHORT CHIP 0	
JR112	1-216-295-91	SHORT CHIP 0	
JR202	1-216-295-91	SHORT CHIP 0	
JR204	1-216-295-91	SHORT CHIP 0	
JR300	1-216-295-91	SHORT CHIP 0	
JR302	1-216-295-91	SHORT CHIP 0	
JR304	1-216-295-91	SHORT CHIP 0	
JR308	1-216-295-91	SHORT CHIP 0	
JR309	1-216-295-91	SHORT CHIP 0	
JR310	1-216-295-91	SHORT CHIP 0	
JR311	1-216-295-91	SHORT CHIP 0	
JR312	1-216-295-91	SHORT CHIP 0	
JR400	1-216-295-91	SHORT CHIP 0	
JR403	1-216-295-91	SHORT CHIP 0	
JR404	1-216-295-91	SHORT CHIP 0	
JR500	1-216-295-91	SHORT CHIP 0	
JR501	1-216-295-91	SHORT CHIP 0	
JR503	1-216-295-91	SHORT CHIP 0	
JR505	1-216-295-91	SHORT CHIP 0	
JR600	1-216-295-91	SHORT CHIP 0	
		<COIL>	
L002	1-414-856-11	INDUCTOR 10UH	
L003	1-414-180-11	INDUCTOR 3.3UH	
L005	1-414-233-22	FERRITE 0UH	
L101	1-414-856-11	INDUCTOR 10UH	
L102	1-414-856-11	INDUCTOR 10UH	
L103	1-414-856-11	INDUCTOR 10UH	
L104	1-414-856-11	INDUCTOR 10UH	
L105	1-414-856-11	INDUCTOR 10UH	
L301	1-414-189-31	INDUCTOR 100UH	
L302	1-414-185-41	INDUCTOR 22UH	
L303	1-414-189-31	INDUCTOR 100UH	
L304	1-414-189-31	INDUCTOR 100UH	

REF NO.	PART NO.	DESCRIPTION	REMARK
L501	1-412-525-31	INDUCTOR 10UH	
L502	1-422-613-11	COIL, AIR CORE	
L503	1-412-525-31	INDUCTOR 10UH	
L504	1-412-525-31	INDUCTOR 10UH	
L507	1-459-111-00	INDUCTOR 10MH	
L511	1-406-978-11	INDUCTOR 150UH	
L512	1-412-549-31	INDUCTOR 1MH	
L513	1-412-549-31	INDUCTOR 1MH	
L515	1-459-104-00	COIL, WITH CORE	
L518	1-414-187-11	INDUCTOR 47UH	
L601	1-406-663-21	INDUCTOR 47UH	
L901	1-414-856-11	INDUCTOR 10UH	
L902	1-414-856-11	INDUCTOR 10UH	
L905	1-414-856-11	INDUCTOR 10UH	
		<PHOTO COUPLER>	
PH600	⚠ 8-749-924-35	ON3171-R	
		<IC LINK>	
PS200	1-532-686-21	LINK, IC 2.7A/150V	
PS600	1-533-597-41	LINK, IC	
PS601	1-533-597-41	LINK, IC	
		<TRANSISTOR>	
Q002	8-729-120-28	2SC1623-L5L6	
Q005	8-729-027-24	DTA114TKA-T146	
Q101	8-729-120-28	2SC1623-L5L6	
Q201	8-729-424-67	UN2216	
Q202	8-729-424-67	UN2216	
Q205	8-729-421-19	UN2213	
Q206	8-729-421-19	UN2213	
Q207	8-729-421-19	UN2213	
Q301	8-729-026-49	2SA1037AK-T146-R	
Q302	8-729-120-28	2SC1623-L5L6	
Q303	8-729-026-49	2SA1037AK-T146-R	
Q305	8-729-026-49	2SA1037AK-T146-R	
Q306	8-729-120-28	2SC1623-L5L6	
Q307	8-729-120-28	2SC1623-L5L6	
Q308	8-729-026-49	2SA1037AK-T146-R	
Q312	8-729-216-22	2SA1162-G	
Q313	8-729-120-28	2SC1623-L5L6	
Q314	8-729-026-49	2SA1037AK-T146-R	
Q315	8-729-421-19	UN2213	
Q503	8-729-120-28	2SC1623-L5L6	
Q505	8-729-931-45	IRF614	
Q506	8-729-119-80	2SC2688-LK	
Q507	8-729-026-49	2SA1037AK-T146-R	
Q509	8-729-120-28	2SC1623-L5L6	
Q511	8-729-048-07	2SD2578-CA	
Q600	8-729-119-78	2SC2785-HFE	
Q601	8-729-023-22	2SD2114K	
Q602	8-729-120-28	2SC1623-L5L6	
Q603	8-729-424-08	UN2111	
Q604	8-729-200-17	2SA1091-O	
Q605	8-729-044-30	2SK2845-LB102	
Q606	8-729-120-28	2SC1623-L5L6	
Q607	8-729-823-22	2SC3576	
Q608	8-729-120-28	2SC1623-L5L6	

A

REF NO.	PART NO.	DESCRIPTION		REMARK	
		<RESISTOR>			
R001	1-414-233-22	FERRITE	0UH		
R002	1-216-025-11	RES-CHIP	100	5%	1/10W
R003	1-216-073-91	RES-CHIP	10K	5%	1/10W
R004	1-216-025-11	RES-CHIP	100	5%	1/10W
R005	1-216-025-11	RES-CHIP	100	5%	1/10W
R008	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R010	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R011	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R012	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R013	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R014	1-216-025-11	RES-CHIP	100	5%	1/10W
R015	1-216-025-11	RES-CHIP	100	5%	1/10W
R018	1-216-033-00	RES-CHIP	220	5%	1/10W
R019	1-216-073-91	RES-CHIP	10K	5%	1/10W
R020	1-216-045-00	RES-CHIP	680	5%	1/10W
R021	1-216-073-91	RES-CHIP	10K	5%	1/10W
R022	1-216-025-11	RES-CHIP	100	5%	1/10W
R024	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R025	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R026	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R027	1-216-073-91	RES-CHIP	10K	5%	1/10W
R028	1-216-073-91	RES-CHIP	10K	5%	1/10W
R029	1-216-049-11	RES-CHIP	1K	5%	1/10W
R031	1-216-049-11	RES-CHIP	1K	5%	1/10W
R032	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R034	1-216-049-11	RES-CHIP	1K	5%	1/10W
R035	1-216-025-11	RES-CHIP	100	5%	1/10W
R036	1-216-025-11	RES-CHIP	100	5%	1/10W
R037	1-216-025-11	RES-CHIP	100	5%	1/10W
R040	1-216-025-11	RES-CHIP	100	5%	1/10W
R041	1-216-025-11	RES-CHIP	100	5%	1/10W
R042	1-216-295-91	SHORT CHIP	0		
R043	1-216-049-11	RES-CHIP	1K	5%	1/10W
R044	1-216-025-11	RES-CHIP	100	5%	1/10W
R045	1-414-233-22	FERRITE	0UH		
R046	1-216-049-11	RES-CHIP	1K	5%	1/10W
R047	1-414-233-22	FERRITE	0UH		
R048	1-216-073-91	RES-CHIP	10K	5%	1/10W
R049	1-216-295-91	SHORT CHIP	0		
R050	1-216-073-91	RES-CHIP	10K	5%	1/10W
R053	1-216-049-11	RES-CHIP	1K	5%	1/10W
R058	1-216-295-91	SHORT CHIP	0		
R059	1-216-295-91	SHORT CHIP	0		
R060	1-216-295-91	SHORT CHIP	0		
R061	1-216-033-00	RES-CHIP	220	5%	1/10W
R062	1-216-041-00	RES-CHIP	470	5%	1/10W
R063	1-216-041-00	RES-CHIP	470	5%	1/10W
R064	1-216-041-00	RES-CHIP	470	5%	1/10W
R065	1-216-041-00	RES-CHIP	470	5%	1/10W
R066	1-216-049-11	RES-CHIP	1K	5%	1/10W
R067	1-216-049-11	RES-CHIP	1K	5%	1/10W
R068	1-216-041-00	RES-CHIP	470	5%	1/10W
R101	1-216-025-11	RES-CHIP	100	5%	1/10W
R102	1-216-025-11	RES-CHIP	100	5%	1/10W
R105	1-216-295-91	SHORT CHIP	0		
R109	1-216-041-00	RES-CHIP	470	5%	1/10W
R111	1-216-025-11	RES-CHIP	100	5%	1/10W
R112	1-216-025-11	RES-CHIP	100	5%	1/10W
R113	1-216-047-91	RES-CHIP	820	5%	1/10W
R202	1-216-039-00	RES-CHIP	390	5%	1/10W

REF NO.	PART NO.	DESCRIPTION		REMARK	
R203	1-216-049-11	RES-CHIP	1K	5%	1/10W
R204	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R205	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R206	1-216-049-11	RES-CHIP	1K	5%	1/10W
R207	1-216-039-00	RES-CHIP	390	5%	1/10W
R208	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R209	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R210	1-216-027-00	RES-CHIP	120	5%	1/10W
R212	1-216-027-00	RES-CHIP	120	5%	1/10W
R225	1-216-033-00	RES-CHIP	220	5%	1/10W
R226	1-216-033-00	RES-CHIP	220	5%	1/10W
R227	1-216-033-00	RES-CHIP	220	5%	1/10W
R228	1-249-389-11	CARBON	4.7	5%	1/4W
R229	1-216-073-91	RES-CHIP	10K	5%	1/10W
R230	1-216-073-91	RES-CHIP	10K	5%	1/10W
R231	1-216-295-91	SHORT CHIP	0		
R234	1-249-389-11	CARBON	4.7	5%	1/4W
R237	1-216-308-00	RES-CHIP	4.7	5%	1/10W
R301	1-216-073-91	RES-CHIP	10K	5%	1/10W
R302	1-216-295-91	SHORT CHIP	0		
R303	1-216-049-11	RES-CHIP	1K	5%	1/10W
R304	1-216-073-91	RES-CHIP	10K	5%	1/10W
R305	1-216-051-00	RES-CHIP	1.2K	5%	1/10W
R308	1-216-025-11	RES-CHIP	100	5%	1/10W
R309	1-216-025-11	RES-CHIP	100	5%	1/10W
R310	1-216-025-11	RES-CHIP	100	5%	1/10W
R311	1-216-041-00	RES-CHIP	470	5%	1/10W
R312	1-216-039-00	RES-CHIP	390	5%	1/10W
R313	1-216-037-00	RES-CHIP	330	5%	1/10W
R314	1-216-083-00	RES-CHIP	27K	5%	1/10W
R316	1-216-037-00	RES-CHIP	330	5%	1/10W
R317	1-216-091-00	RES-CHIP	56K	5%	1/10W
R318	1-216-039-00	RES-CHIP	390	5%	1/10W
R319	1-216-025-11	RES-CHIP	100	5%	1/10W
R320	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R321	1-216-073-91	RES-CHIP	10K	5%	1/10W
R322	1-216-033-00	RES-CHIP	220	5%	1/10W
R325	1-216-041-00	RES-CHIP	470	5%	1/10W
R326	1-216-295-91	SHORT CHIP	0		
R331	1-216-295-91	SHORT CHIP	0		
R332	1-216-033-00	RES-CHIP	220	5%	1/10W
R335	1-216-045-00	RES-CHIP	680	5%	1/10W
R338	1-216-037-00	RES-CHIP	330	5%	1/10W
R340	1-216-025-11	RES-CHIP	100	5%	1/10W
R345	1-216-081-00	RES-CHIP	22K	5%	1/10W
R348	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R349	1-216-073-91	RES-CHIP	10K	5%	1/10W
R350	1-216-061-91	RES-CHIP	3.3K	5%	1/10W
R351	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R354	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R355	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R356	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R357	1-216-079-00	RES-CHIP	18K	5%	1/10W
R358	1-216-049-11	RES-CHIP	1K	5%	1/10W
R359	1-216-033-00	RES-CHIP	220	5%	1/10W
R360	1-216-033-00	RES-CHIP	220	5%	1/10W
R361	1-216-073-91	RES-CHIP	10K	5%	1/10W
R362	1-216-075-00	RES-CHIP	12K	5%	1/10W
R363	1-216-079-00	RES-CHIP	18K	5%	1/10W
R364	1-216-295-91	SHORT CHIP	0		
R365	1-216-033-00	RES-CHIP	220	5%	1/10W
R370	1-216-033-00	RES-CHIP	220	5%	1/10W

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

A

REF NO.	PART NO.	DESCRIPTION		REMARK	
R371	1-216-083-00	RES-CHIP	27K	5%	1/10W
R372	1-216-091-00	RES-CHIP	56K	5%	1/10W
R376	1-216-081-00	RES-CHIP	22K	5%	1/10W
R377	1-216-121-11	RES-CHIP	1M	5%	1/10W
R378	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R379	1-218-179-11	RES-CHIP	10M	5%	1/10W
R380	1-216-041-00	RES-CHIP	470	5%	1/10W
R383	1-216-049-11	RES-CHIP	1K	5%	1/10W
R384	1-216-295-91	SHORT CHIP	0		
R385	1-216-033-00	RES-CHIP	220	5%	1/10W
R391	1-216-049-11	RES-CHIP	1K	5%	1/10W
R500	1-249-417-11	CARBON	1K	5%	1/4W
R501	1-216-049-11	RES-CHIP	1K	5%	1/10W
R505	1-208-834-11	METAL CHIP	150K	0.5%	1/10W
R506	1-216-685-11	METAL CHIP	27K	0.5%	1/10W
R507	1-249-389-11	CARBON	4.7	5%	1/4W
R508	1-216-473-11	METAL OXIDE	56	5%	3W
R509	1-216-475-11	METAL OXIDE	120	5%	3W
R510	1-215-884-11	METAL OXIDE	47	5%	2W
R511	1-215-910-00	METAL OXIDE	68	5%	3W
R515	1-215-913-11	METAL OXIDE	220	5%	3W
R516	1-216-081-00	RES-CHIP	22K	5%	1/10W
R518	1-247-807-31	CARBON	100	5%	1/4W
R519	1-215-913-11	METAL OXIDE	220	5%	3W
R520	1-249-429-11	CARBON	10K	5%	1/4W
R522	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R523	1-249-411-11	CARBON	330	5%	1/4W
R526	1-208-804-11	METAL CHIP	8.2K	0.5%	1/10W
R527	1-216-001-00	RES-CHIP	10	5%	1/10W
R528	1-208-814-91	METAL CHIP	22K	0.5%	1/10W
R529	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R531	1-247-843-11	CARBON	3.3K	5%	1/4W
R533	1-249-417-11	CARBON	1K	5%	1/4W
R534	1-216-361-00	METAL OXIDE	0.22	5%	2W
R535	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R536	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R537	1-208-802-11	METAL CHIP	6.8K	0.5%	1/10W
R540	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R541	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R542	1-216-295-91	SHORT CHIP	0		
R543	1-216-437-00	METAL OXIDE	5.6K	5%	1W
R544	1-215-917-11	METAL OXIDE	1K	5%	3W
R545	1-216-077-91	RES-CHIP	15K	5%	1/10W
R546	1-216-077-91	RES-CHIP	15K	5%	1/10W
R547	1-216-085-91	RES-CHIP	33K	5%	1/10W
R549	1-215-453-00	METAL	22K	1%	1/4W
R550	1-216-097-11	RES-CHIP	100K	5%	1/10W
R551	1-249-421-11	CARBON	2.2K	5%	1/4W
R552	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R553	1-215-453-00	METAL	22K	1%	1/4W
R554	1-215-457-00	METAL	33K	1%	1/4W
R556	1-215-437-00	METAL	4.7K	1%	1/4W
R558	1-247-843-11	CARBON	3.3K	5%	1/4W
R559	1-249-429-11	CARBON	10K	5%	1/4W
R560	1-216-073-91	RES-CHIP	10K	5%	1/10W
R562	1-249-401-11	CARBON	47	5%	1/4W
R565	1-216-073-91	RES-CHIP	10K	5%	1/10W
R567	1-216-105-91	RES-CHIP	220K	5%	1/10W
R568	1-249-383-11	CARBON	1.5	5%	1/4W
R570	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R571	1-215-443-00	METAL	8.2K	1%	1/4W

REF NO.	PART NO.	DESCRIPTION		REMARK	
R573	1-216-089-91	RES-CHIP	47K	5%	1/10W
R574	1-216-111-00	RES-CHIP	390K	5%	1/10W
R577	1-215-913-11	METAL OXIDE	220	5%	3W
R578	1-216-369-00	METAL OXIDE	1	5%	2W
R579	1-216-097-11	RES-CHIP	100K	5%	1/10W
R580	1-208-830-11	METAL CHIP	100K	0.5%	1/10W
R581	1-208-790-11	METAL CHIP	2.2K	0.5%	1/10W
R583	1-216-109-00	RES-CHIP	330K	5%	1/10W
R584	1-216-295-91	SHORT CHIP	0		
R585	1-249-385-11	CARBON	2.2	5%	1/4W
R588	1-215-913-11	METAL OXIDE	220	5%	3W
R589	1-215-888-00	METAL OXIDE	220	5%	2W
R590	1-215-465-00	METAL	68K	1%	1/4W
R591	1-260-288-11	CARBON	0.47	5%	1/2W
R593	1-260-288-11	CARBON	0.47	5%	1/2W
R594	1-260-288-11	CARBON	0.47	5%	1/2W
R596	1-215-917-11	METAL OXIDE	1K	5%	3W
R597	1-247-750-11	CARBON	680	5%	1/2W
R598	1-249-438-11	CARBON	56K	5%	1/4W
R599	1-249-389-11	CARBON	4.7	5%	1/4W
R600	1-249-438-11	CARBON	56K	5%	1/4W
R601	1-249-419-11	CARBON	1.5K	5%	1/4W
R602	1-249-389-11	CARBON	4.7	5%	1/4W
R603	1-215-485-00	METAL	470K	1%	1/4W
R604	1-216-097-11	RES-CHIP	100K	5%	1/10W
R607	1-249-425-11	CARBON	4.7K	5%	1/4W
R608	1-240-205-91	METAL	22M	5%	1/2W
R609	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R610	1-216-073-91	RES-CHIP	10K	5%	1/10W
R611	1-216-089-91	RES-CHIP	47K	5%	1/10W
R612	1-216-045-00	RES-CHIP	680	5%	1/10W
R614	1-216-041-00	RES-CHIP	470	5%	1/10W
R615	1-216-369-00	METAL OXIDE	1	5%	2W
R616	1-260-302-51	CARBON	6.8	5%	1/2W
R617	1-247-791-91	CARBON	22	5%	1/4W
R619	1-260-128-11	CARBON	270K	5%	1/2W
R620	1-129-720-00	FILM	0.033UF	5.00%	630V
R621	1-215-864-00	METAL OXIDE	150	5%	1W
R623	1-216-095-00	RES-CHIP	82K	5%	1/10W
R624	1-216-089-91	RES-CHIP	47K	5%	1/10W
R626	1-216-049-11	RES-CHIP	1K	5%	1/10W
R627	1-240-251-11	CEMENTED	6.8	5%	10W
R629	1-247-747-11	CARBON	470	5%	1/2W
R630	1-249-429-11	CARBON	10K	5%	1/4W
R631	1-216-089-91	RES-CHIP	47K	5%	1/10W
R632	1-220-886-11	FUSIBLE	0.1	10%	1W
R634	⚠ 1-240-917-91	METAL	8.2M	5%	1W
R635	1-216-492-11	METAL OXIDE	82K	5%	3W
R636	1-215-924-00	METAL OXIDE	15K	5%	3W
R637	1-216-492-11	METAL OXIDE	82K	5%	3W
R639	1-216-361-00	METAL OXIDE	0.22	5%	2W
R640	1-249-415-11	CARBON	680	5%	1/4W
R641	1-216-361-00	METAL OXIDE	0.22	5%	2W
R642	1-249-419-11	CARBON	1.5K	5%	1/4W
R643	1-247-843-11	CARBON	3.3K	5%	1/4W
R644	1-249-419-11	CARBON	1.5K	5%	1/4W
R646	1-215-924-00	METAL OXIDE	15K	5%	3W
R647	1-249-387-11	CARBON	3.3	5%	1/4W
R648	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R649	1-249-417-11	CARBON	1K	5%	1/4W
R650	1-215-882-00	METAL OXIDE	22	5%	2W
R652	1-215-900-11	METAL OXIDE	22K	5%	2W

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

A B9

REF NO.		PART NO.	DESCRIPTION			
R653		1-215-873-00	METAL OXIDE	4.7K	5%	1W
R654		1-216-369-00	METAL OXIDE	1	5%	2W
R656		1-249-417-11	CARBON	1K	5%	1/4W
R657		1-260-127-11	CARBON	220K	5%	1/2W
R659		1-216-049-11	RES-CHIP	1K	5%	1/10W
R660		1-216-073-91	RES-CHIP	10K	5%	1/10W
R661		1-215-873-00	METAL OXIDE	4.7K	5%	1W
R682		1-219-134-11	FUSIBLE	0.1	10%	1/4W
R901		1-249-411-11	CARBON	330	5%	1/4W
R902		1-249-411-11	CARBON	330	5%	1/4W
R909		1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R910		1-216-065-91	RES-CHIP	4.7K	5%	1/10W
			<RELAY>			
RY600	⚠	1-755-299-11	RELAY, AC POWER			
RY601	⚠	1-755-299-11	RELAY, AC POWER			
			<SWITCH>			
S501		1-572-707-11	SWITCH, LEVER			
S502		1-572-707-11	SWITCH, LEVER			
			<TRANSFORMER>			
T501		1-437-195-11	TRANSFORMER, HORIZONTAL DRIVE			
T503	⚠	1-453-284-11	TRANSFORMER ASSY FLYBACK (NX-4009//M314)			
T504		1-431-693-11	TRANSFORMER, HORIZONTAL LINEAR			
T505		1-426-981-11	TRANSFORMER, FERRITE (PMT)			
T601		1-429-505-11	COIL, LINE FILTER			
T603	⚠	1-435-147-31	TRANSFORMER, CONVERTER (SRT)			
T604	⚠	1-431-852-11	TRANSFORMER, CONVERTER (SRT)			
			<THERMISTOR>			
TH600		1-803-586-11	THERMISTOR, NTC			
			<THERMISTOR>			
THP600		1-803-540-11	THERMISTOR			
			<TUNER>			
TU101		8-598-448-10	TUNER, FSS BTF-LG413			
			<VARISTOR>			
VDR600		1-803-830-11	VARISTOR (ERZV14D621)			
			<CRYSTAL>			
X001		1-579-125-11	VIBRATOR, CERAMIC			
X301		1-781-134-21	VIBRATOR, CRYSTAL			
X302		1-781-132-21	VIBRATOR, CRYSTAL			

****

REF NO.	PART NO.	DESCRIPTION			
	* A-1300-808-A	B9 BOARD COMPLETE			
		**********			
	1-533-223-11	CLIP, FUSE			
		<CAPACITOR>			
C7227	1-163-037-11	CERAMIC CHIP	0.022UF	10.00%	50V
C7228	1-163-024-00	CERAMIC CHIP	0.018UF	10.00%	50V
C7229	1-163-018-00	CERAMIC CHIP	0.0056UF	10.00%	50V
C7230	1-163-024-00	CERAMIC CHIP	0.018UF	10.00%	50V
C7231	1-163-018-00	CERAMIC CHIP	0.0056UF	10.00%	50V
C7232	1-163-037-11	CERAMIC CHIP	0.022UF	10.00%	50V
C7233	1-164-492-11	CERAMIC CHIP	0.15UF	10.00%	16V
C7234	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C7235	1-164-492-11	CERAMIC CHIP	0.15UF	10.00%	16V
C7236	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C7238	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C7240	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C7241	1-164-346-11	CERAMIC CHIP	1UF		16V
C7242	1-164-505-11	CERAMIC CHIP	2.2UF		16V
C7243	1-164-346-11	CERAMIC CHIP	1UF		16V
C7244	1-164-700-11	CERAMIC CHIP	0.68UF		16V
C7245	1-164-346-11	CERAMIC CHIP	1UF		16V
C7246	1-163-018-00	CERAMIC CHIP	0.0056UF	10.00%	50V
C7247	1-164-346-11	CERAMIC CHIP	1UF		16V
C7248	1-163-010-11	CERAMIC CHIP	0.0012UF	10.00%	50V
C7249	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C7250	1-164-346-11	CERAMIC CHIP	1UF		16V
C7251	1-163-017-00	CERAMIC CHIP	0.0047UF	10.00%	50V
C7252	1-164-346-11	CERAMIC CHIP	1UF		16V
C7253	1-163-037-11	CERAMIC CHIP	0.022UF	10.00%	50V
C7254	1-126-965-91	ELECT	22UF	20.00%	50V
C7255	1-163-037-11	CERAMIC CHIP	0.022UF	10.00%	50V
C7258	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C7259	1-126-933-11	ELECT	100UF	20.00%	16V
C7260	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C7261	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C7263	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C7301	1-126-933-11	ELECT	100UF	20.00%	16V
C7304	1-126-967-11	ELECT	47UF	20.00%	50V
C7305	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C7333	1-126-964-11	ELECT	10UF	20.00%	50V
C7401	1-164-346-11	CERAMIC CHIP	1UF		16V
C7402	1-164-346-11	CERAMIC CHIP	1UF		16V
C7403	1-163-005-91	CERAMIC CHIP	470PF	10.00%	50V
C7404	1-163-005-91	CERAMIC CHIP	470PF	10.00%	50V
C7405	1-126-935-11	ELECT	470UF	20.00%	16V
C7406	1-164-346-11	CERAMIC CHIP	1UF		16V
C7407	1-164-346-11	CERAMIC CHIP	1UF		16V
C7408	1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V
C7409	1-126-933-11	ELECT	100UF	20.00%	16V
C7410	1-164-346-11	CERAMIC CHIP	1UF		16V
C7411	1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V
C7412	1-164-346-11	CERAMIC CHIP	1UF		16V
C7413	1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V
C7414	1-126-963-11	ELECT	4.7UF	20.00%	50V
C7415	1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V
C7416	1-164-346-11	CERAMIC CHIP	1UF		16V
C7417	1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V
C7418	1-164-346-11	CERAMIC CHIP	1UF		16V
C7419	1-163-133-00	CERAMIC CHIP	470PF	5.00%	50V

B9

REF NO.	PART NO.	DESCRIPTION		REMARK	
C7513	1-216-295-91	SHORT CHIP	0		
C7514	1-216-295-91	SHORT CHIP	0		
C7515	1-163-243-11	CERAMIC CHIP	47PF	5.00%	50V
C7517	1-164-005-11	CERAMIC CHIP	0.47UF		25V
C7518	1-126-963-11	ELECT	4.7UF	20.00%	50V
C7519	1-163-249-11	CERAMIC CHIP	82PF	5.00%	50V
C7520	1-163-249-11	CERAMIC CHIP	82PF	5.00%	50V
C7522	1-164-005-11	CERAMIC CHIP	0.47UF		25V
C7523	1-163-255-11	CERAMIC CHIP	150PF	5.00%	50V
C7524	1-163-247-91	CERAMIC CHIP	68PF	5.00%	50V
C7525	1-163-249-11	CERAMIC CHIP	82PF	5.00%	50V
C7526	1-163-249-11	CERAMIC CHIP	82PF	5.00%	50V
C7528	1-164-005-11	CERAMIC CHIP	0.47UF		25V
C7529	1-163-255-11	CERAMIC CHIP	150PF	5.00%	50V
C7530	1-163-247-91	CERAMIC CHIP	68PF	5.00%	50V
C7543	1-126-933-11	ELECT	100UF	20.00%	16V
C7544	1-165-319-11	CERAMIC CHIP	0.1UF		50V
C7554	1-165-319-11	CERAMIC CHIP	0.1UF		50V
C7557	1-165-319-11	CERAMIC CHIP	0.1UF		50V
C7558	1-126-947-11	ELECT	47UF	20.00%	16V
C7561	1-126-963-11	ELECT	4.7UF	20.00%	50V
C7601	1-104-708-11	MYLAR	0.47UF	20.00%	250V
C7602	1-109-835-11	MYLAR	0.68UF	20.00%	250V
C7654	1-117-703-11	CERAMIC	0.0047UF	99%	250V
		<CONNECTOR>			
CN7401 *	1-564-509-11	PLUG, CONNECTOR 6P			
CN7402 *	1-764-333-11	PLUG, CONNECTOR 10P			
CN7403 *	1-564-510-11	PLUG, CONNECTOR 7P			
CN7501 *	1-564-511-11	PLUG, CONNECTOR 8P			
CN7503 *	1-764-333-11	PLUG, CONNECTOR 10P			
CN7601 *	1-580-843-11	PIN, CONNECTOR (POWER)			
CN7602 *	1-580-843-11	PIN, CONNECTOR (POWER)			
CN7603	1-695-915-11	TAB (CONTACT)			
		<DIODE>			
D7300	8-719-158-35	RD9.1S-B			
D7401	8-719-158-35	RD9.1S-B			
D7402	8-719-158-35	RD9.1S-B			
D7403	8-719-158-35	RD9.1S-B			
D7404	8-719-158-35	RD9.1S-B			
D7405	8-719-158-35	RD9.1S-B			
D7406	8-719-158-35	RD9.1S-B			
D7407	8-719-158-35	RD9.1S-B			
D7408	8-719-158-35	RD9.1S-B			
D7409	8-719-158-35	RD9.1S-B			
D7410	8-719-158-35	RD9.1S-B			
D7411	8-719-158-35	RD9.1S-B			
D7412	8-719-914-42	DA204K			
D7413	8-719-158-35	RD9.1S-B			
D7501	8-719-158-35	RD9.1S-B			
		<FUSE>			
F7601	1-532-299-00	FUSE, TIME-LAG 5A/250V			
		<IC>			
IC7203	8-759-553-40	TDA7429S			
IC7204	8-759-100-96	UPC4558G2			
IC7501	8-759-009-07	MC14053BF			

REF NO.	PART NO.	DESCRIPTION		REMARK	
		<JACK>			
J7402	1-778-388-11	JACK BLOCK, PIN 9P			
		<CHIP CONDUCTOR>			
JR7200	1-216-295-91	SHORT CHIP	0		
JR7203	1-216-295-91	SHORT CHIP	0		
JR7204	1-216-295-91	SHORT CHIP	0		
JR7206	1-216-295-91	SHORT CHIP	0		
JR7208	1-216-295-91	SHORT CHIP	0		
JR7212	1-216-295-91	SHORT CHIP	0		
JR7401	1-216-295-91	SHORT CHIP	0		
JR7403	1-216-295-91	SHORT CHIP	0		
JR7404	1-216-295-91	SHORT CHIP	0		
JR7500	1-216-295-91	SHORT CHIP	0		
JR7501	1-216-295-91	SHORT CHIP	0		
JR7502	1-216-295-91	SHORT CHIP	0		
JR7506	1-216-295-91	SHORT CHIP	0		
JR7507	1-216-295-91	SHORT CHIP	0		
		<COIL>			
L7204	1-414-856-11	INDUCTOR	10UH		
L7301	1-414-189-31	INDUCTOR	100UH		
L7501	1-414-856-11	INDUCTOR	10UH		
L7506	1-414-857-11	INDUCTOR	100UH		
L7507	1-414-187-11	INDUCTOR	47UH		
L7508	1-414-187-11	INDUCTOR	47UH		
L7509	1-414-857-11	INDUCTOR	100UH		
L7510	1-414-187-11	INDUCTOR	47UH		
L7511	1-414-187-11	INDUCTOR	47UH		
L7512	1-414-856-11	INDUCTOR	10UH		
		<TRANSISTOR>			
Q7309	8-729-010-25	MSD601-RT1			
Q7310	8-729-010-25	MSD601-RT1			
Q7401	8-729-424-67	UN2216			
Q7402	8-729-424-67	UN2216			
Q7403	8-729-216-22	2SA1162-G			
Q7404	8-729-216-22	2SA1162-G			
Q7501	8-729-010-25	MSD601-RT1			
Q7502	8-729-216-22	2SA1162-G			
Q7503	8-729-010-25	MSD601-RT1			
Q7505	8-729-010-25	MSD601-RT1			
Q7507	8-729-216-22	2SA1162-G			
Q7509	8-729-010-25	MSD601-RT1			
Q7510	8-729-010-25	MSD601-RT1			
Q7511	8-729-216-22	2SA1162-G			
Q7514	8-729-010-25	MSD601-RT1			
Q7515	8-729-010-25	MSD601-RT1			
Q7516	8-729-216-22	2SA1162-G			
Q7520	8-729-010-25	MSD601-RT1			
Q7522	8-729-010-25	MSD601-RT1			
Q7523	8-729-216-22	2SA1162-G			
		<RESISTOR>			
R7215	1-216-059-00	RES-CHIP	2.7K	5%	1/10W
R7216	1-216-059-00	RES-CHIP	2.7K	5%	1/10W
R7217	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R7218	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R7219	1-216-025-11	RES-CHIP	100	5%	1/10W

B9 C6

REF NO.	PART NO.	DESCRIPTION		REMARK	
R7220	1-216-025-11	RES-CHIP	100	5%	1/10W
R7221	1-216-689-11	RES-CHIP	39K	5%	1/10W
R7222	1-216-689-11	RES-CHIP	39K	5%	1/10W
R7223	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R7224	1-216-073-91	RES-CHIP	10K	5%	1/10W
R7225	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R7226	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R7238	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R7239	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R7240	1-216-689-11	RES-CHIP	39K	5%	1/10W
R7241	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R7242	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R7243	1-216-689-11	RES-CHIP	39K	5%	1/10W
R7334	1-216-022-00	RES-CHIP	75	5%	1/10W
R7335	1-216-033-00	RES-CHIP	220	5%	1/10W
R7336	1-216-041-00	RES-CHIP	470	5%	1/10W
R7337	1-216-045-00	RES-CHIP	680	5%	1/10W
R7339	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R7341	1-216-045-00	RES-CHIP	680	5%	1/10W
R7342	1-216-049-11	RES-CHIP	1K	5%	1/10W
R7343	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
R7344	1-216-073-91	RES-CHIP	10K	5%	1/10W
R7401	1-216-049-11	RES-CHIP	1K	5%	1/10W
R7402	1-216-073-91	RES-CHIP	10K	5%	1/10W
R7403	1-216-073-91	RES-CHIP	10K	5%	1/10W
R7404	1-216-073-91	RES-CHIP	10K	5%	1/10W
R7405	1-216-049-11	RES-CHIP	1K	5%	1/10W
R7406	1-216-073-91	RES-CHIP	10K	5%	1/10W
R7407	1-216-049-11	RES-CHIP	1K	5%	1/10W
R7408	1-216-049-11	RES-CHIP	1K	5%	1/10W
R7409	1-216-041-00	RES-CHIP	470	5%	1/10W
R7410	1-216-113-00	RES-CHIP	470K	5%	1/10W
R7411	1-216-113-00	RES-CHIP	470K	5%	1/10W
R7412	1-216-041-00	RES-CHIP	470	5%	1/10W
R7413	1-216-021-00	RES-CHIP	68	5%	1/10W
R7414	1-216-113-00	RES-CHIP	470K	5%	1/10W
R7415	1-216-113-00	RES-CHIP	470K	5%	1/10W
R7416	1-216-089-91	RES-CHIP	47K	5%	1/10W
R7417	1-216-089-91	RES-CHIP	47K	5%	1/10W
R7418	1-216-113-00	RES-CHIP	470K	5%	1/10W
R7419	1-216-022-00	RES-CHIP	75	5%	1/10W
R7420	1-216-113-00	RES-CHIP	470K	5%	1/10W
R7421	1-216-077-91	RES-CHIP	15K	5%	1/10W
R7422	1-216-077-91	RES-CHIP	15K	5%	1/10W
R7423	1-216-113-00	RES-CHIP	470K	5%	1/10W
R7424	1-216-022-00	RES-CHIP	75	5%	1/10W
R7425	1-216-033-00	RES-CHIP	220	5%	1/10W
R7426	1-216-033-00	RES-CHIP	220	5%	1/10W
R7427	1-216-089-91	RES-CHIP	47K	5%	1/10W
R7428	1-216-113-00	RES-CHIP	470K	5%	1/10W
R7429	1-216-089-91	RES-CHIP	47K	5%	1/10W
R7430	1-216-113-00	RES-CHIP	470K	5%	1/10W
R7503	1-216-025-11	RES-CHIP	100	5%	1/10W
R7504	1-216-025-11	RES-CHIP	100	5%	1/10W
R7506	1-216-025-11	RES-CHIP	100	5%	1/10W
R7507	1-216-081-00	RES-CHIP	22K	5%	1/10W
R7508	1-216-073-91	RES-CHIP	10K	5%	1/10W
R7511	1-216-033-00	RES-CHIP	220	5%	1/10W
R7512	1-216-005-00	RES-CHIP	15	5%	1/10W
R7515	1-216-041-00	RES-CHIP	470	5%	1/10W

REF NO.	PART NO.	DESCRIPTION		REMARK	
R7516	1-216-025-11	RES-CHIP	100	5%	1/10W
R7517	1-216-075-00	RES-CHIP	12K	5%	1/10W
R7520	1-216-079-00	RES-CHIP	18K	5%	1/10W
R7522	1-216-049-11	RES-CHIP	1K	5%	1/10W
R7523	1-216-049-11	RES-CHIP	1K	5%	1/10W
R7528	1-216-033-00	RES-CHIP	220	5%	1/10W
R7529	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R7531	1-216-045-00	RES-CHIP	680	5%	1/10W
R7537	1-216-041-00	RES-CHIP	470	5%	1/10W
R7538	1-216-041-00	RES-CHIP	470	5%	1/10W
R7540	1-216-049-11	RES-CHIP	1K	5%	1/10W
R7541	1-216-041-00	RES-CHIP	470	5%	1/10W
R7542	1-216-041-00	RES-CHIP	470	5%	1/10W
R7543	1-216-049-11	RES-CHIP	1K	5%	1/10W
R7545	1-216-041-00	RES-CHIP	470	5%	1/10W
R7547	1-216-049-11	RES-CHIP	1K	5%	1/10W
R7548	1-216-025-11	RES-CHIP	100	5%	1/10W
R7549	1-216-075-00	RES-CHIP	12K	5%	1/10W
R7551	1-216-081-00	RES-CHIP	22K	5%	1/10W
R7552	1-216-049-11	RES-CHIP	1K	5%	1/10W
R7553	1-216-049-11	RES-CHIP	1K	5%	1/10W
R7554	1-216-033-00	RES-CHIP	220	5%	1/10W
R7556	1-216-049-11	RES-CHIP	1K	5%	1/10W
R7559	1-216-041-00	RES-CHIP	470	5%	1/10W
R7560	1-216-041-00	RES-CHIP	470	5%	1/10W
R7561	1-216-041-00	RES-CHIP	470	5%	1/10W
R7562	1-216-049-11	RES-CHIP	1K	5%	1/10W
R7563	1-216-041-00	RES-CHIP	470	5%	1/10W
R7566	1-216-041-00	RES-CHIP	470	5%	1/10W
R7567	1-216-049-11	RES-CHIP	1K	5%	1/10W
R7568	1-216-041-00	RES-CHIP	470	5%	1/10W
R7569	1-216-049-11	RES-CHIP	1K	5%	1/10W
R7582	1-216-295-91	SHORT CHIP	0		
R7601	1-202-719-00	SOLID	1M	10%	1/2W
		<TRANSFORMER>			
T7601	1-429-505-11	COIL, LINE FILTER			
T7602	1-431-182-11	COIL, LINE FILTER			

****

*	A-1332-164-A	C6 BOARD MOUNTED			
		**********			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		<CAPACITOR>			
C701	1-162-114-00	CERAMIC	0.0047UF		2KV
C702	1-102-074-00	CERAMIC	0.001UF	10.00%	50V
C708	1-102-114-00	CERAMIC	470PF	10.00%	50V
C709	1-102-114-00	CERAMIC	470PF	10.00%	50V
C710	1-102-114-00	CERAMIC	470PF	10.00%	50V
C712	1-102-115-00	CERAMIC	560PF	10.00%	50V
C713	1-102-112-00	CERAMIC	330PF	10.00%	50V
C714	1-102-113-00	CERAMIC	390PF	10.00%	50V
C716	1-126-933-11	ELECT	100UF	20.00%	16V
C717	1-107-651-11	ELECT	4.7UF	20.00%	250V
C1800	1-126-964-11	ELECT	10UF	20.00%	50V
C1803	1-126-964-11	ELECT	10UF	20.00%	50V

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

C6

REF NO.		PART NO.	DESCRIPTION			
C1804		1-126-964-11	ELECT	10UF	20.00%	50V
C1809		1-126-942-61	ELECT	1000UF	20.00%	25V
			<CONNECTOR>			
CN700		1-695-915-11	TAB (CONTACT)			
CN702		1-695-915-11	TAB (CONTACT)			
CN703	*	1-564-509-11	PLUG, CONNECTOR 6P			
CN704		1-695-915-11	TAB (CONTACT)			
CN712	*	1-564-507-11	PLUG, CONNECTOR 4P			
CN1801	*	1-564-509-11	PLUG, CONNECTOR 6P			
CN1802	*	1-564-506-11	PLUG, CONNECTOR 3P			
			<DIODE>			
D701		8-719-911-19	1SS119-25			
D702		8-719-911-19	1SS119-25			
D703		8-719-911-19	1SS119-25			
D704		8-719-911-19	1SS119-25			
D705		8-719-911-19	1SS119-25			
D706		8-719-911-19	1SS119-25			
D707		8-719-911-19	1SS119-25			
D708		8-719-911-19	1SS119-25			
D709		8-719-911-19	1SS119-25			
D710		8-719-911-19	1SS119-25			
D711		8-719-911-19	1SS119-25			
D712		8-719-911-19	1SS119-25			
D716		8-719-911-19	1SS119-25			
D717		8-719-929-15	HZS9.1NB2			
D1803		8-719-911-19	1SS119-25			
D1804		8-719-911-19	1SS119-25			
D1808		8-719-908-03	GP08D			
			<IC>			
IC1800		8-759-822-38	LA6510			
			<JACK>			
J701	⚠	1-540-071-22	SOCKET, CRT			
			<COIL>			
L701		1-410-667-31	INDUCTOR	22UH		
L703		1-414-187-11	INDUCTOR	47UH		
L705		1-414-186-31	INDUCTOR	33UH		
L707		1-414-187-11	INDUCTOR	47UH		
			<TRANSISTOR>			
Q701		8-729-326-11	2SC2611			
Q702		8-729-326-11	2SC2611			
Q703		8-729-326-11	2SC2611			
Q704		8-729-326-11	2SC2611			
Q705		8-729-326-11	2SC2611			
Q706		8-729-326-11	2SC2611			
Q707		8-729-200-17	2SA1091-O			
Q708		8-729-200-17	2SA1091-O			
Q709		8-729-200-17	2SA1091-O			
Q710		8-729-119-78	2SC2785-HFE			
Q711		8-729-119-78	2SC2785-HFE			
Q712		8-729-119-78	2SC2785-HFE			
Q714		8-729-255-12	2SC2551-O			
Q1800		8-729-119-76	2SA1175-HFE			
Q1802		8-729-119-78	2SC2785-HFE			
			<RESISTOR>			
R701		1-219-752-11	METAL	100K	5%	1/2W
R705		1-216-392-11	METAL OXIDE	1.8	5%	3W
R710		1-215-923-00	METAL OXIDE	10K	5%	3W
R711		1-260-330-11	CARBON	1.5K	5%	1/2W
R712		1-215-923-00	METAL OXIDE	10K	5%	3W
R713		1-260-330-11	CARBON	1.5K	5%	1/2W
R714		1-215-923-00	METAL OXIDE	10K	5%	3W
R715		1-260-330-11	CARBON	1.5K	5%	1/2W
R716		1-249-899-11	CARBON	100	5%	1/4W
R717		1-249-899-11	CARBON	100	5%	1/4W
R718		1-249-899-11	CARBON	100	5%	1/4W
R719		1-215-469-00	METAL	100K	1%	1/4W
R720		1-249-923-11	CARBON	1K	5%	1/4W
R722		1-249-923-11	CARBON	1K	5%	1/4W
R723		1-215-485-00	METAL	470K	1%	1/4W
R724		1-249-923-11	CARBON	1K	5%	1/4W
R725		1-249-424-11	CARBON	3.9K	5%	1/4W
R726		1-249-424-11	CARBON	3.9K	5%	1/4W
R727		1-249-424-11	CARBON	3.9K	5%	1/4W
R728		1-249-408-11	CARBON	180	5%	1/4W
R729		1-249-408-11	CARBON	180	5%	1/4W
R730		1-249-408-11	CARBON	180	5%	1/4W
R731		1-249-401-11	CARBON	47	5%	1/4W
R732		1-249-401-11	CARBON	47	5%	1/4W
R733		1-249-401-11	CARBON	47	5%	1/4W
R734		1-219-743-11	METAL	100	5%	1/2W
R738		1-247-807-31	CARBON	100	5%	1/4W
R739		1-247-807-31	CARBON	100	5%	1/4W
R740		1-247-807-31	CARBON	100	5%	1/4W
R747		1-215-926-00	METAL OXIDE	33K	5%	3W
R749		1-215-927-00	METAL OXIDE	47K	5%	3W
R751		1-216-490-11	METAL OXIDE	39K	5%	3W
R753		1-249-429-11	CARBON	10K	5%	1/4W
R755		1-249-427-11	CARBON	6.8K	5%	1/4W
R756		1-249-427-11	CARBON	6.8K	5%	1/4W
R757		1-249-427-11	CARBON	6.8K	5%	1/4W
R758		1-249-419-11	CARBON	1.5K	5%	1/4W
R759		1-249-419-11	CARBON	1.5K	5%	1/4W
R760		1-249-419-11	CARBON	1.5K	5%	1/4W
R1800		1-249-417-11	CARBON	1K	5%	1/4W
R1801		1-249-426-11	CARBON	5.6K	5%	1/4W
R1802		1-249-387-11	CARBON	3.3	5%	1/4W
R1803		1-249-387-11	CARBON	3.3	5%	1/4W
R1805		1-249-429-11	CARBON	10K	5%	1/4W
R1806		1-249-425-11	CARBON	4.7K	5%	1/4W
R1808		1-249-425-11	CARBON	4.7K	5%	1/4W
R1809		1-249-435-11	CARBON	33K	5%	1/4W
R1810		1-249-435-11	CARBON	33K	5%	1/4W
R1811		1-249-435-11	CARBON	33K	5%	1/4W
R1812		1-249-435-11	CARBON	33K	5%	1/4W
R1821		1-249-435-11	CARBON	33K	5%	1/4W
R1822		1-249-435-11	CARBON	33K	5%	1/4W
R1823		1-249-426-11	CARBON	5.6K	5%	1/4W
R1824		1-249-435-11	CARBON	33K	5%	1/4W
R1825		1-247-843-11	CARBON	3.3K	5%	1/4W

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

C6 H J1

REF NO.	PART NO.	DESCRIPTION			REMARK
		<VARIABLE RESISTOR>			
RV702	1-241-656-11	RES, ADJ, METAL FILM 110M			
RV1801	1-238-019-11	RES, ADJ, CARBON 47K			
**********					
	* A-1401-395-A	H BOARD MOUNTED			
		**********			
	* 4-055-304-11	HOLDER, LED			
		<CAPACITOR>			
C3910	1-126-947-11	ELECT	47UF	20.00%	16V
C3911	1-126-947-11	ELECT	47UF	20.00%	16V
C3912	1-102-114-00	CERAMIC	470PF	10.00%	50V
		<CONNECTOR>			
CN3601	* 1-580-844-11	PIN, CONNECTOR (POWER)			
CN3602	* 1-580-844-11	PIN, CONNECTOR (POWER)			
CN3901	* 1-564-507-11	PLUG, CONNECTOR 4P			
CN3902	* 1-564-509-11	PLUG, CONNECTOR 6P			
CN3904	* 1-564-512-11	PLUG, CONNECTOR 9P			
CN3905	* 1-564-512-11	PLUG, CONNECTOR 9P			
		<DIODE>			
D3905	8-719-070-16	NNCD9.1A-T1			
D3906	8-719-083-18	DIODE SPB-25MVWF			
D3908	8-719-070-16	NNCD9.1A-T1			
		<IC>			
IC3901	8-742-225-20	IC SBX3081-21			
		<JACK>			
J3901	1-750-264-11	JACK			
J3903	1-770-329-13	JACK, PIN 3P			
		<TRANSISTOR>			
Q3901	8-729-030-02	DTC144ESA			
Q3902	8-729-030-02	DTC144ESA			
		<RESISTOR>			
R3907	1-249-426-11	CARBON	5.6K	5%	1/4W
R3908	1-249-413-11	CARBON	470	5%	1/4W
R3909	1-249-417-11	CARBON	1K	5%	1/4W
R3910	1-249-420-11	CARBON	1.8K	5%	1/4W
R3911	1-249-411-11	CARBON	330	5%	1/4W
R3912	1-247-843-11	CARBON	3.3K	5%	1/4W
R3913	1-249-429-11	CARBON	10K	5%	1/4W
R3914	1-249-411-11	CARBON	330	5%	1/4W
R3915	1-249-429-11	CARBON	10K	5%	1/4W
R3916	1-249-401-11	CARBON	47	5%	1/4W
R3920	1-247-807-31	CARBON	100	5%	1/4W
R3921	1-247-807-31	CARBON	100	5%	1/4W
		<SWITCH>			
S3601	⚠ 1-571-433-31	SWITCH, PUSH (AC POWER)			
S3902	1-692-431-21	SWITCH, TACTILE			
S3903	1-692-431-21	SWITCH, TACTILE			
S3904	1-692-431-21	SWITCH, TACTILE			
S3905	1-692-431-21	SWITCH, TACTILE			
S3906	1-692-431-21	SWITCH, TACTILE			
S3907	1-692-431-21	SWITCH, TACTILE			
S3908	1-692-431-21	SWITCH, TACTILE			
**********					
	* A-1401-394-A	J1 BOARD MOUNTED			
		**********			
		<CAPACITOR>			
C2410	1-126-967-11	ELECT	47UF	20.00%	50V
C2411	1-126-967-11	ELECT	47UF	20.00%	50V
C2412	1-126-967-11	ELECT	47UF	20.00%	50V
C2413	1-102-112-00	CERAMIC	330PF	10.00%	50V
C2414	1-102-112-00	CERAMIC	330PF	10.00%	50V
C2418	1-126-960-11	ELECT	1UF	20.00%	50V
C2419	1-126-960-11	ELECT	1UF	20.00%	50V
		<CONNECTOR>			
CN2410	* 1-564-523-11	PLUG, CONNECTOR 8P			
		<DIODE>			
D2410	8-719-070-16	NNCD9.1A-T1			
D2411	8-719-070-16	NNCD9.1A-T1			
D2412	8-719-070-16	NNCD9.1A-T1			
D2414	8-719-070-16	NNCD9.1A-T1			
D2415	8-719-070-16	NNCD9.1A-T1			
		<JACK>			
J2410	1-784-623-11	BLOCK, PIN JACK 5P			
		<RESISTOR>			
R2410	1-247-804-11	CARBON	75	5%	1/4W
R2411	1-247-804-11	CARBON	75	5%	1/4W
R2412	1-247-804-11	CARBON	75	5%	1/4W
R2414	1-247-887-00	CARBON	220K	5%	1/4W
R2415	1-249-431-11	CARBON	15K	5%	1/4W
R2417	1-247-887-00	CARBON	220K	5%	1/4W
R2418	1-249-431-11	CARBON	15K	5%	1/4W
R2419	1-249-409-11	CARBON	220	5%	1/4W
R2420	1-249-409-11	CARBON	220	5%	1/4W
R2421	1-249-409-11	CARBON	220	5%	1/4W
**********					

VM1

REF NO.	PART NO.	DESCRIPTION			REMARK
*	A-1401-393-A	VM1 BOARD MOUNTED **********			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		<CAPACITOR>			
C5902	1-104-661-91	ELECT	330UF	20.00%	16V
C5903	1-161-830-00	CERAMIC	0.0047UF		500V
C5905	1-126-935-11	ELECT	470UF	20.00%	10V
C5906	1-130-491-00	MYLAR	0.047UF	5.00%	50V
C5907	1-107-638-11	ELECT	33UF	20.00%	160V
C5908	1-106-383-00	MYLAR	0.047UF	10.00%	200V
C5909	1-126-933-11	ELECT	100UF	20.00%	16V
C5910	1-130-471-00	MYLAR	0.001UF	5.00%	50V
C5911	1-107-949-11	ELECT	2.2UF	20.00%	160V
C5912	1-104-999-11	MYLAR	0.1UF	10.00%	200V
C5913	1-130-471-00	MYLAR	0.001UF	5.00%	50V
C5914	1-126-933-11	ELECT	100UF	20.00%	16V
C5916	1-130-491-00	MYLAR	0.047UF	5.00%	50V
C5917	1-126-935-11	ELECT	470UF	20.00%	10V
C5918	1-102-244-00	CERAMIC	220PF	10.00%	500V
C5920	1-126-964-11	ELECT	10UF	20.00%	50V
C5921	1-101-888-00	CERAMIC	68PF	5.00%	50V
		<CONNECTOR>			
CN5901	* 1-564-510-11	PLUG, CONNECTOR 7P			
CN5904	* 1-770-723-11	CONNECTOR, BOARD TO BOARD 8P			
		<DIODE>			
D5901	8-719-911-19	1SS119-25			
D5902	8-719-110-86	RD39ES-B			
D5903	8-719-911-19	1SS119-25			
D5904	8-719-110-86	RD39ES-B			
D5905	8-719-911-19	1SS119-25			
D5906	1-249-406-11	CARBON	120	5%	1/4W
D5907	1-249-406-11	CARBON	120	5%	1/4W
		<COIL>			
L5901	1-414-187-11	INDUCTOR	47UH		
L5902	1-414-856-11	INDUCTOR	10UH		
		<TRANSISTOR>			
Q5901	8-729-119-78	2SC2785-HFE			
Q5902	8-729-809-26	2SA1606-E			
Q5903	8-729-119-78	2SC2785-HFE			
Q5904	8-729-119-76	2SA1175-HFE			
Q5905	8-729-119-78	2SC2785-HFE			
Q5906	8-729-809-29	2SC4159-E			
Q5908	8-729-119-78	2SC2785-HFE			
Q5909	8-729-119-78	2SC2785-HFE			

REF NO.	PART NO.	DESCRIPTION			REMARK
		<RESISTOR>			
R5901	1-249-409-11	CARBON	220	5%	1/4W
R5902	1-249-414-11	CARBON	560	5%	1/4W
R5903	1-247-734-11	CARBON	39	5%	1/2W
R5904	1-249-411-11	CARBON	330	5%	1/4W
R5905	1-249-417-11	CARBON	1K	5%	1/4W
R5906	1-249-417-11	CARBON	1K	5%	1/4W
R5907	1-249-417-11	CARBON	1K	5%	1/4W
R5908	1-249-383-11	CARBON	1.5	5%	1/4W
R5909	1-249-409-11	CARBON	220	5%	1/4W
R5910	1-249-403-11	CARBON	68	5%	1/4W
R5911	1-249-439-11	CARBON	68K	5%	1/4W
R5912	1-249-437-11	CARBON	47K	5%	1/4W
R5914	1-249-403-11	CARBON	68	5%	1/4W
R5915	1-249-429-11	CARBON	10K	5%	1/4W
R5916	1-249-419-11	CARBON	1.5K	5%	1/4W
R5917	1-249-416-11	CARBON	820	5%	1/4W
R5918	1-249-429-11	CARBON	10K	5%	1/4W
R5919	1-249-417-11	CARBON	1K	5%	1/4W
R5920	1-249-439-11	CARBON	68K	5%	1/4W
R5921	1-216-476-11	METAL OXIDE	180	5%	3W
R5922	1-249-414-11	CARBON	560	5%	1/4W
R5923	1-249-383-11	CARBON	1.5	5%	1/4W
R5925	1-249-400-11	CARBON	39	5%	1/4W
R5929	1-215-880-00	METAL OXIDE	10	5%	2W
R5930	1-249-413-11	CARBON	470	5%	1/4W
R5931	1-249-413-11	CARBON	470	5%	1/4W
R5932	1-249-413-11	CARBON	470	5%	1/4W
R5933	1-249-413-11	CARBON	470	5%	1/4W
R5934	1-249-430-11	CARBON	12K	5%	1/4W
R5935	1-249-429-11	CARBON	10K	5%	1/4W

****

ACCESSORIES AND PACKING MATERIALS
****

	3-701-910-00	SCREW, SPECIAL (DIA. 3.8X20)
*	4-037-760-01	BAG, PROTECTION
*	4-081-743-01	INDIVIDUAL CARTON
*	4-081-744-02	CUSHION (UPPER) (ASSY)
*	4-081-747-01	CUSHION (LOWER) (ASSY)
	4-090-286-11	MANUAL, INSTRUCTION
	4-392-003-21	BAND, HOLDING
	4-059-705-01	CLIP

****

BATTERY COVER REMOTE COMMANDER
****

1-418-163-51	REMOTE COMMANDER (RM-952)
9-939-697-01	BATTERY COVER REMOTE COMMANDER

Sony Corporation
Sony Technology Malaysia Sdn. Bhd.
Visual Products

9-872-324-01

English
© 2002.7